ORDER NO. VKD86111018C8

Service Manual

Remote Control Unit
WV-RC35

RCU Adaptor
WV-AD37

Camera Remote Controller
WV-CR12

Pan/Tilt Head
WV-PH10

Mounting Bracket
WV-Q39

12× Studio Zoom Lens
WV-LZ15/12

10P-14P Conversion Cable
WV-CA11

WV-RC35
WV-AD37
WV-CR12
WV-PH10
WV-Q39
WV-LZ15/12
WV-CA11

CONTENTS

SAFETY PRECAUTION 2

CIRCUIT DESCRIPTION

Remote Control Unit (RCU) WV-RC35 3
Camera Remote Controller WV-CR12 5
RCU Adaptor WV-AD37 5
Pan/Tilt Head WV-PH10 7

ADJUSTMENT PROCEDURE

1. Test Equipment Required 8
2. Disassembling Procedure for Adjustment 8
   Remote Control Unit (RCU) WV-RC35 8
   RCU Adaptor WV-AD37 8
   Camera Remote Controller WV-CR12 8
   Pan/Tilt Head WV-PH10 9
3. Disassembly Procedure 10
   Pan/Tilt Head WV-PH10 10
   Mounting Bracket WV-Q39 11
   12X Automatic Iris Studio Zoom Lens
   WV-LZ15/12 11
4. Adjustment Procedure 12
   Remote Control Unit (RCU) WV-RC35 12
   RCU Adaptor WV-AD37 12
   Camera Remote Controller WV-CR12 15
   Pan/Tilt Head WV-PH10 16
LOCATION OF TEST POINTS AND
ADJUSTING CONTROLS 16
CABLE INFORMATION 17

BLOCK DIAGRAM

Remote Control Unit (RCU) WV-RC35 18
RCU Adaptor WV-AD37 19
Camera Remote Controller WV-CR12 20

SCHEMATIC DIAGRAM

Remote Control Unit (RCU) WV-RC35 21
RCU Adaptor WV-AD37 24
Camera Remote Controller WV-CR12 25
Pan/Tilt Head WV-PH10 27
Mounting Bracket WV-Q39 27

CONDUCTOR VIEW

Remote Control Unit (RCU) WV-RC35 22
RCU Adaptor WV-AD37 23
Camera Remote Controller WV-CR12 26
Pan/Tilt Head WV-PH10 27
Mounting Bracket WV-Q39 27

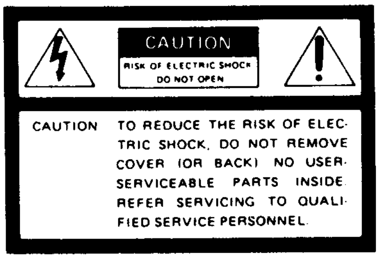
WIRING DIAGRAM

12X Automatic Iris Studio Zoom Lens WV-LZ15/12 . . 28
REPLACEMENT PARTS LIST 29
EXPLODED VIEW 44

National/Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

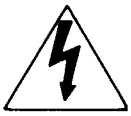
SAFETY PRECAUTION



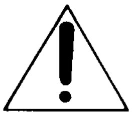
CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included.
Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are shaded on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

Circuit Description

WV-RC35

The remote control unit WV-RC35 has following circuits.

Power Board

- + 17V Regulator Circuit

Main Board

- + 5V Regulator Circuit
- Video Signal Output Circuit
- Lineview Video Output Circuit
- V.Sync Separation Circuit
- Gen-Lock Output Circuit
- Microprocessor Circuit
- Intercom Amplifier Circuit

Power Board

- **+ 17V Regulator Circuit**

This circuit is composed of IC1, Q2 and Q3 on the power board and a power transistor Q1.
Approx. 22V AC obtained at secondary winding is rectified by D1 and approx. + 30V DC is generated.
The + 30V DC is switched by the power transistor Q1 and D2. As a result, regulated + 17V DC is generated and it is fed to the AC/DC selection switch.
The switching frequency is approx. 100KHz which is set by C4 and R6 EXT DC voltage (12V ~ 20V) is supplied to CN2 (EXT DC INPUT).

Main Board

- **+ 5V Regulator Circuit**

This circuit is composed of Q46 and Q47 and + 5V DC is generated from the regulated + 9V DC.

- **Video Signal Output Circuit**

This circuit is composed of Q1 ~ Q13 and a VBS signal from the camera head through the RCU adaptor WV-AD37 is amplified to compensate the cable loss and fed to the video output connectors.

- **Lineview Video Output Circuit**

This circuit is composed of Q20 ~ Q28 and a lineview video signal (VBS) fed to the AUX INPUT connectors is amplified to compensate the cable loss and fed to the camera head through a studio cable and RCU adaptor.

- **V.Sync Separation Circuit**

This circuit is composed of Q15 ~ Q19 and the V.sync signal of the video (VBS) signal from the camera head is separated and fed to the microprocessor circuit as a reference signal for the serial data transmission.
The composite sync signal of the VBS is detected by Q14 and amplified by Q15. The V.sync signal is detected from the composite sync signal by an integrator R54 and C19.
A waveform shaper Q16 and Q17 makes V.sync signal sharp.
The negative polarity V.sync signal is fed to the base of Q41.

- **Gen-Lock Output Circuit**

This circuit is composed of Q29 ~ Q34 and the gen-lock signal (black burst or composite video (VBS) signal) is phase-shifted by Q29 and VR6 (SC PHASE FINE) on the Control board and amplified by Q31 ~ Q34.
The gen-lock signal is then sent to the camera head through RCU adaptor.

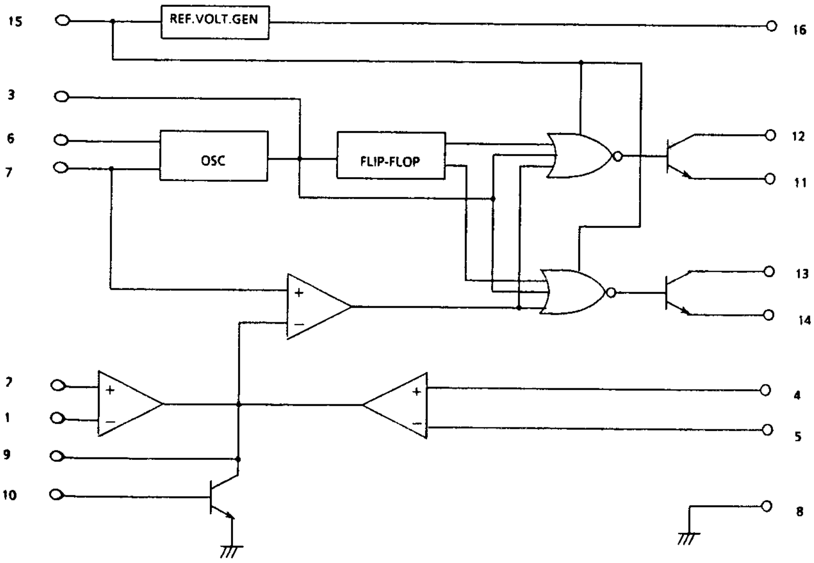


Fig. 1 Block Diagram of IC1

- **Microprocessor Circuit**

This circuit is composed of IC1 ~ IC3, IC6, Q40 ~ Q43.
This circuit sends the 8 times of 8 bit data to the camera head as a serial data at the rate of 8 bits per 1Vs period.
The block diagram is shown below.

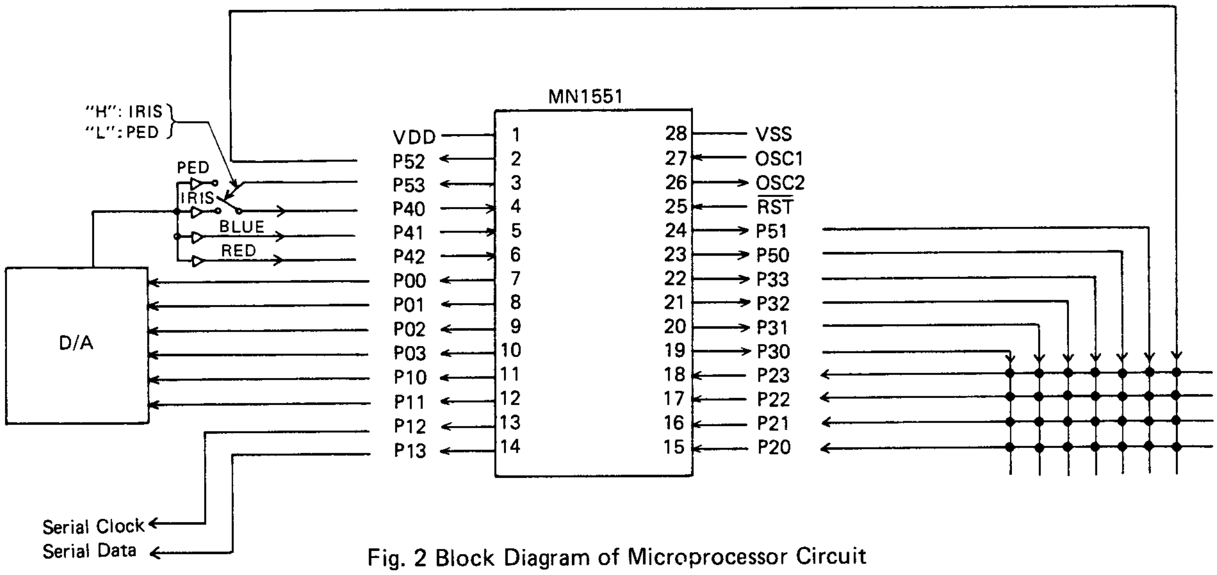

MN1551
"H": IRIS
"L": PED
PED
IRIS
BLUE
RED
D/A
Serial Clock
Serial Data
VDD
P52
P53
P40
P41
P42
P00
P01
P02
P03
P10
P11
P12
P13
1
2
3
4
5
6
7
8
9
10
11
12
13
14
28
27
26
25
24
23
22
21
20
19
18
17
16
15
VSS
OSC1
OSC2
RST
P51
P50
P33
P32
P31
P30
P23
P22
P21
P20

Fig. 2 Block Diagram of Microprocessor Circuit

The pin identification of IC1 (MN1551CVT3S)

Pin No.	Name	In/Out	Description
1	V_{DD}	IN	Power
2	P52	OUT	Key scan out
3	P53	OUT	Iris (H)/Pedestal (L)
4	P40	IN	Iris or Pedestal (H – up)
5	P41	IN	Blue Gain (H – up)
6	P42	IN	Red Gain (H – up)
7	P00	OUT	Iris R.B Gain DA0 (LSB)
8	P01	OUT	Iris R.B Gain DA1
9	P02	OUT	Iris R.B Gain DA2
10	P03	OUT	Iris R.B Gain DA3
11	P10	OUT	Iris R.B Gain DA4
12	P11	OUT	Iris R.B Gain DA5 (MSB)
13	P12	OUT	Serial Clock
14	P13	OUT	Serial Data
15	P20	IN	Key scan in
16	P21	IN	Key scan in
17	P22	IN	Key scan in
18	P23	IN	Key scan in
19	P30	OUT	Key scan out
20	P31	OUT	Key scan out
21	P32	OUT	Key scan out
22	P33	OUT	Key scan out
23	P50	OUT	Key scan out
24	P51	OUT	Key scan out
25	$\overline{RST}$	IN	Reset pulse
26	OSC2	OUT	Clock oscillator
27	OSC1	IN	Clock oscillator
28	Vss	IN	Ground

IN / OUT	P23	P22	P21	P20
P30	AWC SET	FADE	REC · REV	NEGA · POSI SLOW
P31	COLOR BAR /CAMERA ON=BAR OFF=CAMERA	STANDBY /ON ON=STANDBY OFF=ON	AWC/ATW ON=ATW OFF=AWC	REC/PLAY ON=PLAY OFF=REC
P32	REC START/STOP	DATE·TIME ON/OFF (SHIFT) REV	TITLE ON/OFF (SEQ) CUE	(SET START/STOP) PLAY/STILL
P33	FOCUS SPEED ON=FAST OFF=SLOW	SW LOCK ON=LOCK OFF=FREE	TIME LAPS ON/OFF	TALLY LIGHT OFF=ON AIR
P50	FOCUS AUTO/MANU ON=AUTO OFF=MANU	AF ONE SHOT AREA SIZE	PAN·TILT /FOCUS·ZOOM ON=PAN·TILT OFF=FOCUS·ZOOM	PLAY BACK ON=PLAY BACK
P51	PAN RIGHT ZOOM WIDE	PAN LEFT ZOOM TELE	TILT DOWN FOCUS FAR	TILT UP FOCUS NEAR
P52	ZOOM SPEED ON=FAST OFF=SLOW	TIME LAPS MODE SW ON=LAPS	Vsync ON(L) OFF(H)	VTR (CR12) /(CAMERA) ON=(CR1 2) OFF=(CAMERA)

Fig. 3 Input Matrix Circuit

- **Intercom Amplifier Circuit**

This circuit is composed of IC4, IC5, Q36 ~ Q39.
'IC4 is the amplifier for the speaker of the head set connected to the RCU adaptor WV-AD37.
IC5 is the amplifier for the talk signal which is fed to SEG (Special Effect Generator).

WV-CR12

The camera remote controller WV-CR12 has following circuits.

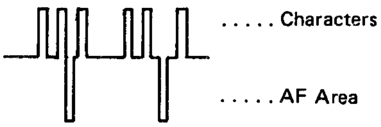
- Video Output Circuit
- AF Area and EVF Character Signal Circuit
- Zebra and Vp Signal Circuit
- Microprocessor Circuit

- **Video Output Circuit**

This circuit is composed of Q4 ~ Q25 and Q66 and receives composite video signal (VBS) of camera head or playback video signal from the VTR and feeds it to the VTR connector and monitor output connector together with level indicator (zebra) and character signals.
The VBS signal from pin 1 of CN9 is amplified by Q4 ~ Q13, Q15, Q17, Q18 to compensate the cable loss.
The gain (Q11 ~ Q13) and frequency response (Q5, Q7 ~ Q10) is selected by SW1 (CABLE LENGTH COMPENSATION SWITCH).
Q20 detects the playback DC voltage multiplexed on the playback video signal from the VTR and cuts off Q15, Q17, Q18 and playback video signal from pin 1 of CN9 is ampiified by Q21 ~ Q25 and supplied to the monitor output.
The zebra and character signals are mixed to the video signal at the emitter of Q22.

- **AF Area and EVF Character Signal Circuit**

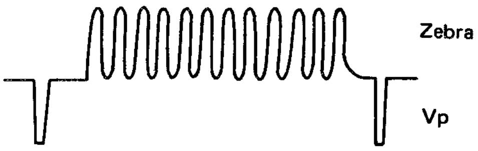
This circuit is composed of Q26 ~ Q35, Q45 ~ Q50 and receives AF area and character signals from the camera head and feeds them to the video output circuit to mix them with the composite video signal for monitor output.
The AF area and character signal from pin 6 of CN9 is amplified by Q26 ~ Q35 as well as the composite video signal.
The waveform at TP4 (AREA) is shown below.



Q47 and Q48 pass the character signal and Q49 and Q50 pass the AF area signal.
The AF area signal is then switched ON/OFF by the SW22 (AF ZONE ON/OFF SWITCH).

- Zebra and Vp Signal Circuit

This circuit is composed of Q36~Q44 & Q65 and receives the level indicator (zebra) & Vp (multiplexed) signal from the camera head and feeds the zebra signal to the video output circuit to mix it with the composite video signal for monitor output. This circuit also separates the Vp pulse and sends it to the microprocessor circuit as a reference signal of the serial data transmission.



The zebra&Vp signal from pin 5 of CN9 is amplified by Q36 ~ Q43 as well as the video output and AF area & character circuits. The zebra signal is then fed to the emitter of Q22 from the emitter of Q43 through IC1(b) (REC/P.B) and IC1(a) (STANDBY/ON). Q44 and Q65 separate the Vp signal by canceling the zebra signal and feed it to the microprocessor circuit.

- Microprocessor Circuit

This circuit is composed of IC1(c), IC2~IC4,IC6,Q51~Q54 and Q57~Q64 and make the serial data communication with the camera head, VTR and 8X auto-focus lens.
Please refer to page 1-44 and 1-45 of WV-3260/8AF series (NTSC) or WVP-F10 series (PAL) service manual for the pin identification of IC6 and page 3 of this manual for that of IC2.

WV-AD37

The RCU adaptor WV-AD37 has following circuits.

- Internal/External Selection Circuit
- Lineview Video Output Circuit
- H.Phase Control Circuit
- SC Phase Control Circuit
- Camera/RCU Selection Circuit
- Serial Data Output Circuit
- Serial Clock Output Circuit
- Sync Separation Circuit
- Burst Gate Circuit
- Color bar Signal Generator Circuit

- Internal/External Selection Circuit

This circuit is composed of Q19 and receives INT (Internal sync.: Low) or EXT (Gen-lock : High) signal from the camera head through pin 6 of CN9. The output of Q19 turns ON or OFF of the gen-lock indicator D2 and Q4 which is used for reducing a noise of sync separation circuit when no gen-lock signal is supplied.

- Lineview Video Output Circuit

This circuit is composed of Q20 and receives the lineview video signal from RCU and removes the chroma component of lineview video signal by CF4 and sends it to camera head.

- H.Phase Control Circuit

This circuit is composed of IC3, IC4(d) and Q18 and supplies the DC voltage of H.phase control for gen-lock mode from VR1 (H.PHASE for using RCU adaptor only) or that of from RCU through Q18. IC3 selects the RCU use(RCU) or without RCU(EXT) mode. IC4(d) is a DC amplifier for the H.phase cotrol DC voltage.

- SC Phase Control Circuit

This circuit is composed of IC3, IC4(a),(b),(c) and supplies 2 bits control signal to the camera head.

IC4(a),(b) and (c) conform a window comparator and SC phase control DC voltage (analog signal) from SW1 & SW2 (SC PHASE COARSE-1 & 2) or from the RCU through IC3.

The 2 bits output signal obtained at pins 1 and 2 is fed to camera head through pins 1 & 4 of CN9.

- Camera/RCU Selection Circuit

This circuit is composed of Q134 and Q135 and receives RCU(High) or EXT(Low) selection signal from SW1 (POWER SELECTION SWITCH) and enables or disables the serial data output and serial clock output circuits.

- Serial Data Output Circuit

This circuit is composed of Q131~Q133 and amplifies/shapes the serial data signal.

- Serial Clock Output Circuit

This circuit is composed of Q113~Q115 and amplifies/shapes the serial clock signal as well as the serial data output circuit.

- Sync Separation Circuit

This circuit is composed of Q1~Q6 and generates composite sync signal by separating it from the gen-lock signal (black burst or composite video signal). The gen-lock sync signal obtained at the collector of Q6 is fed to the camera head through pin 8 of CN9.

- Burst Gate Circuit

This circuit is composed of Q7~Q9 and MAIN VIC BOARD and generates the gen-lock burst signal by separating it from the gen-lock signaland sends it to the camera head.

IC1 on the VIC board receives non-delayed burst signal from the emitter of Q10 to pin 8 of IC10 and amplifies it by the DC control voltage fed from the thermistor mounted on camera head through pin 9 of CN9 to pin 4 of IC1 on VIC board.

The amplified burst signal obtained at pin 12 of IC1 is mixed with 90° delayed burst signal at pin 2 of BPF CF3. By this mixing, the burst phase is compensated (maintained) from a temperature drift.

The burst signal obtained at pin 13 of IC2(a) is sent to the camera head through pin 11 of CN9.

- Color bar Signal Generator Circuit

This circuit is composed of IC101~IC103, IC105, IC106, Q101~Q112 & Q116~Q130 and generates composite color bar signal and send it to the camera head.

IC101(a) and (d) oscillate approx.130kHz pulse and feed it to pin 15 of IC102. IC102 generates following pulses.

Blue pulse —— Pin 6
Red pulse —— Pin 11
Green pulse — Pin14

The Y signal of color bar is generated at the base of Q104 , R-Y signal at pin 7 and B-Y signal at pin 1 of IC103 are generated respectively.

The R-Y and B-Y signals are then mixed with burst flag pulse (BFP) fed from the emitters of Q126 & Q128 and supplied to balanced modulator IC106 pins 5 & 14.

The modulated chroma & burst signal mixed at the base of Q108 is then forwarded to the output amplifier of color bar signal consisting of Q105~Q110.

Q116~Q122 conform the phase shifter for generating R-Y subcarrier & B-Y subcarrier signals.

In the PAL model, the R-Y subcarrier signal is inverted by lines by IC105 pins 3,4 & 5.

WV-PH10

The Pan/Tilt head WV-PH10 has following circuits.

- Panning Motor Drive Circuit
- Tilting Motor Drive Circuit

- Panning Motor Drive Circuit

This circuit is composed of IC1,IC3,Q1, & Q3 and detects the direction of panning (LEFT/RIGHT) and supplies the drive current to the panning motor.

The IC1 conformes a window comparator and the panning control signal fed from pin 3 of CN1 is as follows.

LEFT	Approx. 1~2 volts
RIGHT	Approx. 3~4 volts

LEFT	Pins 1 & 14 of IC1 —— High Pins 2 & 13 of IC1 — Low Drive current — Pin 7 of IC3 –Pin 1 of CN3 – PAN MOTOR – Pin 3 of CN3 – Pin 8 of IC3
RIGHT	Vise versa of left

Q1 and Q3 control the drive current thus the motor speed is controlled.

- Tilting Motor Drive Circuit

This circuit functions same mannar as the panning motor drive circuit.

ADJUSTMENT PROCEDURE

1. Test Equipment Required

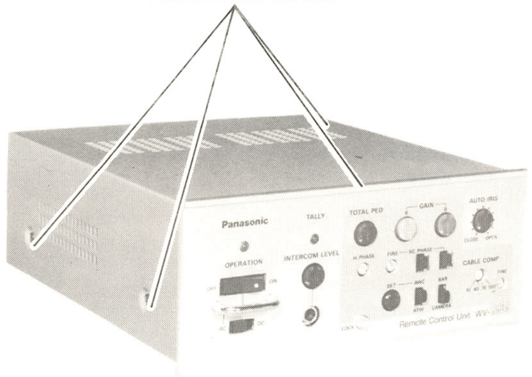
The following test equipment is required for adjustment of Remote Control Unit (RCU) model WV-RC35, RCU Adaptor model WV-AD37, Camera Remote Controller model WV-CR12 and Pan/Tilt Head model WV-PH10.

- o Oscilloscope
  (dual trace, delayed sweep, 25MHz band width with three probes.)
- o Digital voltmeter (DVM)
- o Frequency counter
- o Vectorscope
- o Color video monitor
- o Tripod

2. Disassembly Procedure for Adjustment

2-1 Remote Control Unit WV-RC35

o Remove four screws which hold the cover and remove the cover. (Fig. 2-1-1)

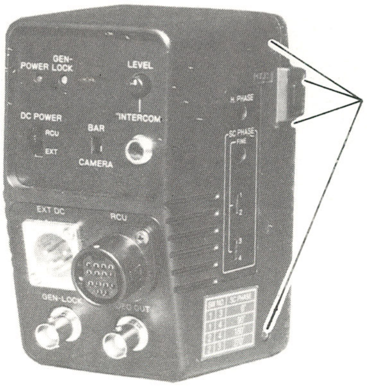

Panasonic
TALLY
TOTAL PED
GAIN
AUTO IRIS
OPERATION
INTERCOM LEVEL
CABLE COMP
Remote Control Unit

Remove two screws

Fig. 2-1-1

2-2 RCU Adaptor WV-AD37

o Remove four screws which hold the cover and remove the cover. (Fig. 2-2-1 and Fig. 2-2-2)


GEN-
POWER LOCK
LEVEL
DC POWER
RCU
EXT
BAR
INTERCOM
CAMERA
H PHASE
SC PHASE
EXT DC
RCU
GEN-LOCK
VIDEO OUT

Remove four screws

Fig. 2-2-1

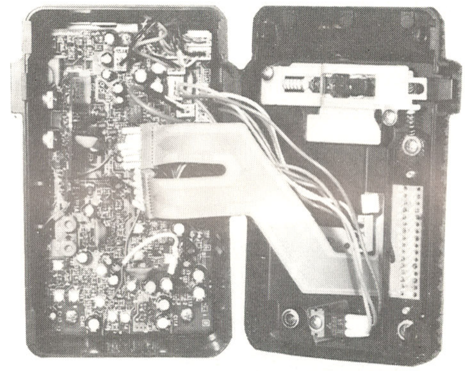
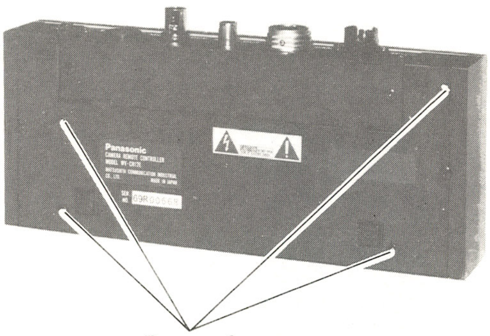


Fig. 2-2-2

2-3 Camera Remote Controller WV-CR12

o Remove four screws which hold the cover and remove the cover. (Fig. 2-3-1 and Fig. 2-3-2)


Panasonic
CAMERA REMOTE CONTROLLER
MADE IN JAPAN

Remove four screws

Fig. 2-3-1

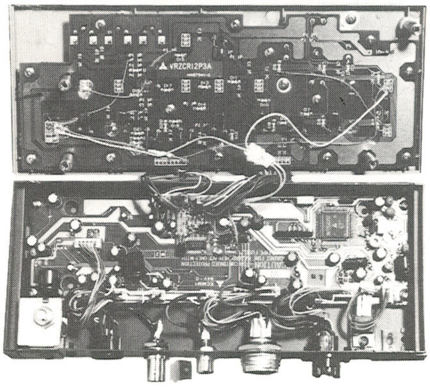


Fig. 2-3-2

2-4 Pan/Tilt Head WV-PH10

o Remove two screws which hold the decoration plate and remove the decoration plate. (Fig. 2-4-1)

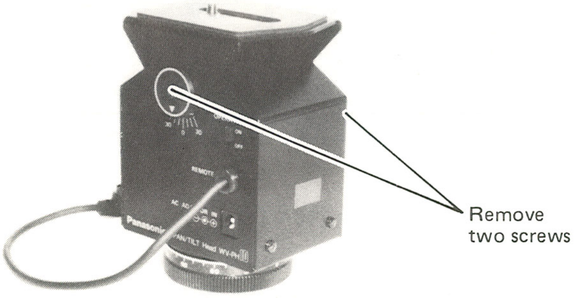

Remove
two screws

Fig. 2-4-1

o Remove six screws which hold the camera stand and remove the camera stand. (Fig. 2-4-2)

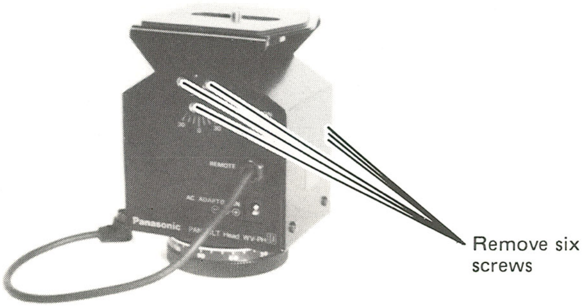

Remove six
screws

Fig. 2-4-2

o Remove ten screws which hold the cover and remove the cover. (Fig. 2-4-3)

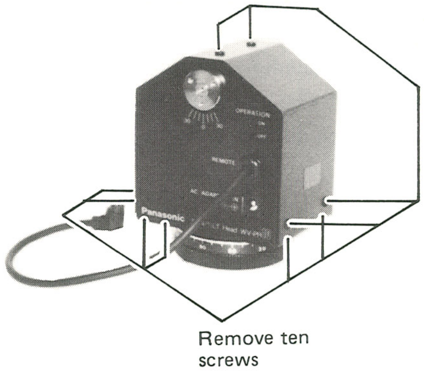

Remove ten
screws

Fig. 2-4-3

o Remove the control board by removing four fixing screws. (Fig. 2-4-4 and Fig. 2-4-5)

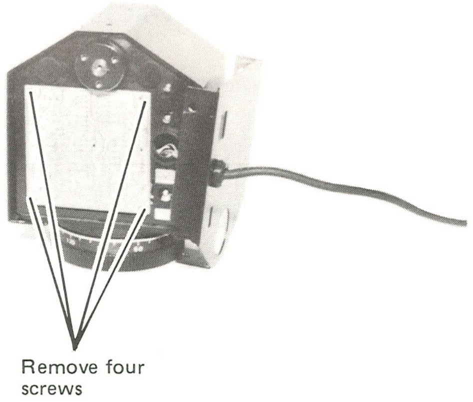

Remove four
screws

Fig. 2-4-4

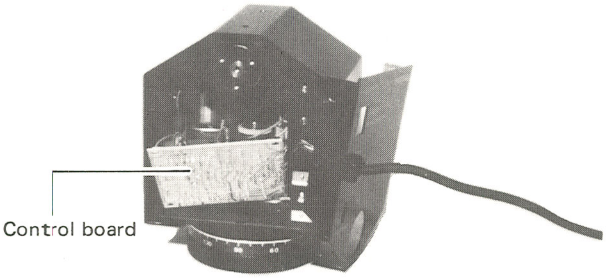

Control board

Fig. 2-4-5

3. Disassembly Procedure

3-1 Pan/Tilt Head WV-PH10

- See Fig. 2-4-1 on page 9.
- See Fig. 2-4-2 on page 9.
- See Fig. 2-4-3 on page 9.
- See Fig. 2-4-4 on page 9.
- Remove two screws fixing the flange and T cam using hexa wrench and remove two screws fixing the side plate and remove the flange and side plate. (Fig. 3-1-1 and Fig. 3-1-2)

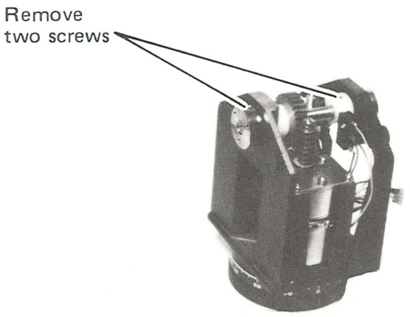

Remove
two screws

Fig. 3-1-1

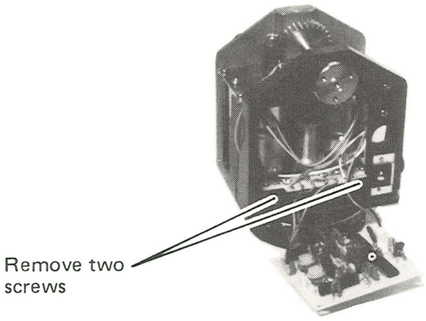

Remove two
screws

Fig. 3-1-2

- Remove the switch board by removing two fixing screws. (Fig. 3-1-3)

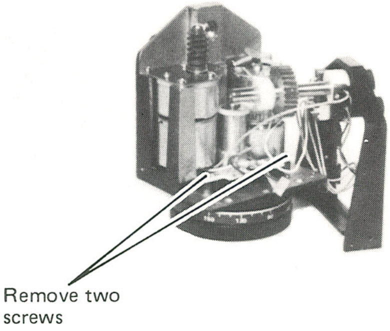

Remove two
screws

Fig. 3-1-3

- Remove the tilting motor unit by removing three fixing screws. (Fig. 3-1-4)

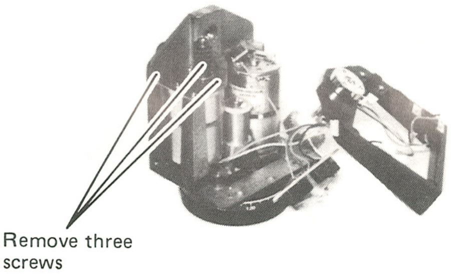

Remove three
screws

Fig. 3-1-4

- Remove the paning main shaft base assy by removing fixing screws. (Fig. 3-1-5)

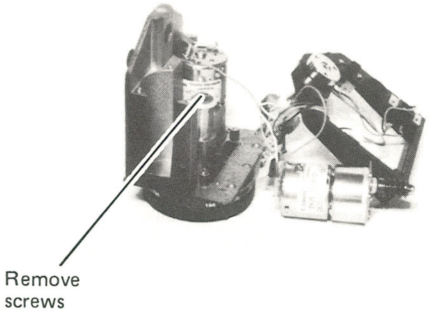

Remove
screws

Fig. 3-1-5

- Remove the paning motor unit by removing three fixing screws. (Fig. 3-1-6)

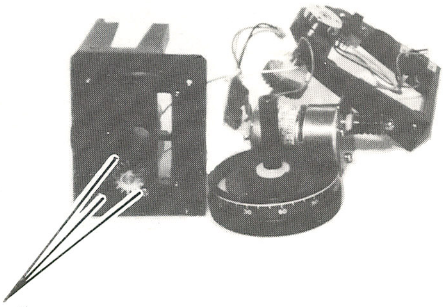

Remove three screws

Fig. 3-1-6

3-2 Mounting Bracket WV-Q39

- Remove four screws which hold the cover and remove the cover. (Fig. 3-2-1)

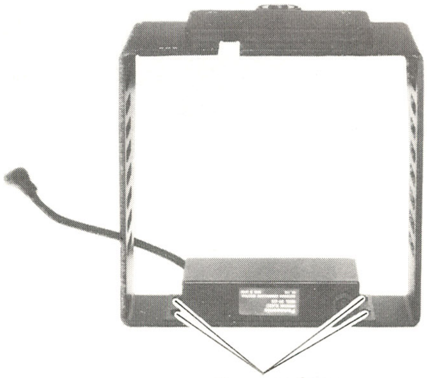

Remove four screws

Fig. 3-2-1

- Removetwoscrews which hold the buffer board and remove the buffer board.(Fif. 3-2-2)

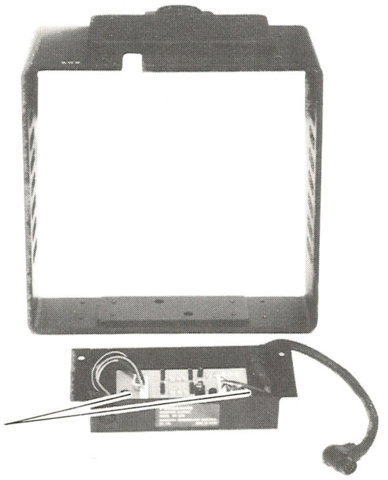

Remove two screws

Fig. 3-2-2

3-3 12X Automatic Iris Studio Zoom Lens WV-LZ15/12

- Disconnect the lens connector from the camera.
- Remove the lens hood by turning it counterclockwise.
- Remove four screws which hold the Iris Cover. (Fig. 3-3-1)

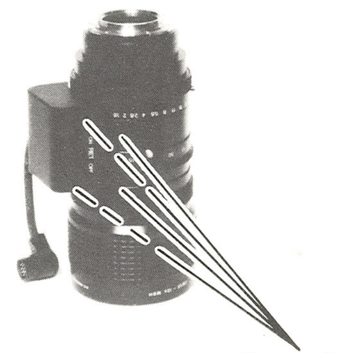

Remove four screws

Fig. 3-3-1

- Remove two screws which hold the Iris Switch. (Fig. 3-3-2 and Fig. 3-3-3)

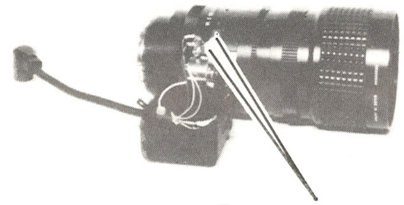

Remove two screws

Fig. 3-3-2

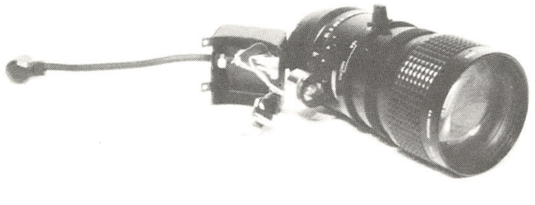


Fig. 3-3-3

4. Adjustment Procedure

4-1 Remote Control Unit (RCU) WV-RC35 Adjustment

- o Disassemble the Remote Control Unit (RCU) while referring to 2-1 Remote Control Unit WV-RC35 on page 8.
- o Refer to page 16 for the test points and adjusting controls.

(a) +17V adjustment

Test point:	TP2 (+17V)	Power board
Adjust:	VR1 (+17V ADJ)	Power board

- o Connect ther digital voltmeter (DVM) probe between TP2 (+17V) and TP3 (GND) ground.
- o Adjust VR1(+17V ADJ) for +17V±0.05V

(b) +5V adjustment

Test point:	TP1 (+5V)	Main board
Adjust:	VR1 (+5V ADJ)	Main board

- o Connect the digital voltmeter (DVM) probe between TP1 (+5V) on the Main board and TP3 (GND) ground on the Power board.
- o Adjust VR1(+5V ADJ) for +5V±0.05V

4-2 RCU Adaptor WV-AD37 Adjustment

- o Disassemble the RCU Adaptor WV-AD37 while referring to 2-2 RCU Adaptor WV-AD37 on page 8.
- o Refer to page 16 for the test points and adjusting controls.

(a) Connection and setting up for adjustment

Connection

- o Mount the RCU Adaptor WV-AD37 on the camera while connecting the 32-pin junction connector on the camera and the RCU adaptor.
- o Connect the RCU Adaptor WV-AD37 and RCU using a 30ft (10m) 14-pin studio cable (14C-30).
- o Connect the VIDEO OUTPUT connector on the RCU to the VIDEO INPUT connector of color monitor through the vectorscope using a coaxial cable.
- o Terminate the video input of color monitor with 75 ohms.

Position of controls and switches on the camera, RCU and RCU Adaptor

(Camera)
- Right Side -
[Control Board]
Standby switch (SW1) : Right (ON) position
AGC selection switch (SW2) : Center (LOW) position
[Power/Sync Board]
Level indicator switch (SW3) : Upper (ON) position
(NTSC only)
H.blanking width switch (SW2) : Upper (1, 10.9 µsec) position
V.blanking width switch (SW1) : Upper (1, 20H) position

- Left Side -
[Audio Board]
DC power selection switch (SW2) : Left (EXT) position

- Rear Side -
[Mother Board]
VTR compatibility switch (SW1) : Upper (⊕) position

(RCU)
Total pedestal control : Mechanical center position
Red gain control : Mechanical center position
Blue gain control : Mechanical center position
Auto Iris control : Mechanical center position
Cable length compensation switch : 10m (30ft)
Color Bar/Camera Selection switch : Upper (BAR) position

(RCU Adaptor)
DC Power Selection Switch : Upper (RCU) position

- o The camera must be completely aligned before RCU adjustment is made.

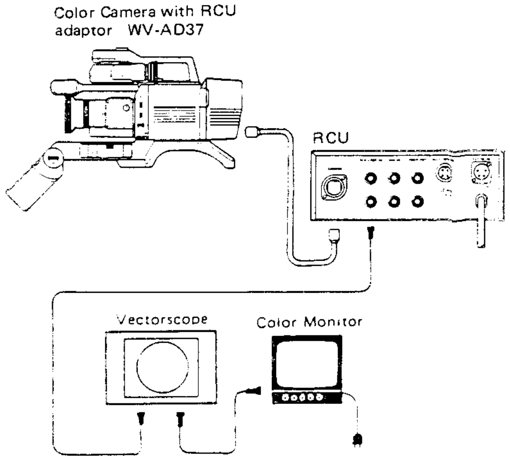


Fig. 4-2-1

(b) Color bar width adjustment

Test point:	Video Output Connector	
Adjust:	VR101 (C/B WIDTH)	Main board

- o Connect the oscilloscope to Video Output Connector on the rear of the RCU adaptor.
- o Adjust VR101 (C/B WIDTH) on the Main board so tht the black of color bar width is 5.4 μsec ± 0.1 μsec. (Fig. 4-2-2)

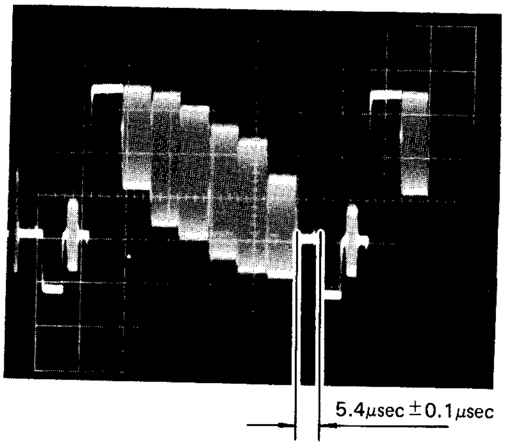
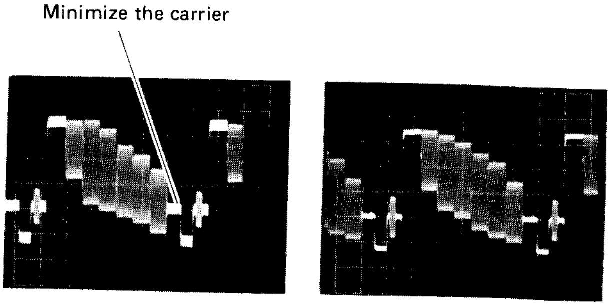


Fig. 4-2-2

(c) Carrier balance and white balance adjustment

Test point:	Video Output Connector	
Adjusts:	VR102 (C/B R-Y_L WHITE BAL)	Main board
	VR111 (C/B B-Y_L WHITE BAL)	Main board
	VR106 (C/B B-Y_L CARRIER BAL)	Main board
	VR107 (C/B R-Y_L CARRIER BAL)	Main board

- o Observe the oscilloscope to the terminated Video Output Connector.
- o Adjust VR106 (C/ B B-Y_L CARRIER BAL) and VR107 (C/B B-Y_L CARRIER BAL) on the Main board alternately so that the carrier on the black level of video signal becomes minimum. (Fig. 4-2-3)

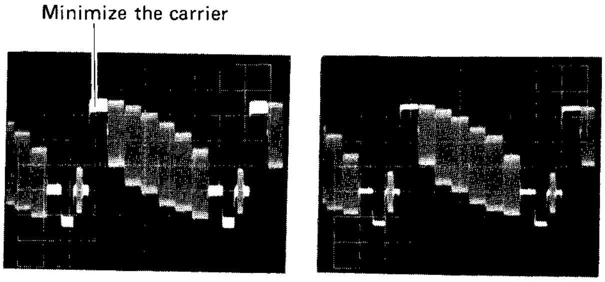


NO GOOD

GOOD

Fig. 4-2-3

- o Adjust VR111 (C/B B-Y_L WHITE BAL) and VR102 (C/B R-Y_L WHITE BAL) on the Main board alternately so that the carrier on the white level of video signal becomes minimum. (Fig. 4-2-4)



NO GOOD

GOOD

Fig. 4-2-4

- o Repeat adjusting VR111, VR102, VR106 and VR107 so that the carrier on the black and white level of video signal is minimum.

(d) Chroma and Burst adjustment

Test point:	Video output connector	
Adjusts:	VR108	Main board
	(R-Y/B-Y BALANCE)	
	VR109	Main board
	(C/B CHROMA GAIN)	
	CT1	Main board
	(SC 90° PHASE)	
	VR104	Main board
	(BURST PHASE)	
	VR105	Main board
	(BURST GAIN)	
[PAL only)		
	VR103	Main board
	(SC R BALANCE)	
	CT2	Main board
	(SC 270° PHASE)	

[Adjustment for NTSC model]

- o Observe the vectorscope.
- o Set the gain switch of the vectorscope to 75%.
- o Turn the phase control of vectorscope so that the burst vector aligns with the burst axis of the vectorscope.
- o Adjust VR104 (BURST PHASE) so that the all vectors fall into their respective boxes on the vectorscope.(Fig .4-2-5)
- o Set the gain control of vectorscope to the calibration position.
- o Adjust VR108 (R-Y/B-Y BALANCE), VR109 (C/B CHROMA GAIN) and CT1 (SC 90° PHASE) so that the all vectors fall into their respective boxes on the vectorscope. (Fig. 4-2-5)

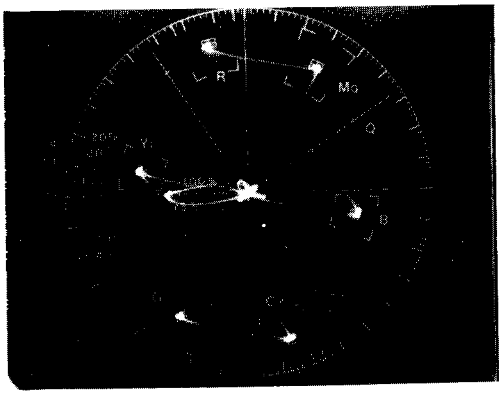


Fig. 4-2-5

- o Repeat adjusting above steps until all vectors fall into their respective boxes on the vectorscope.
- o Adjust VR105 (BURST GAIN) so that the burst vector aligns on the burst axes, its amplitude is at 75% position and other vectors fall into their respective boxes on the vectorscope. (Fig. 4-2-6)

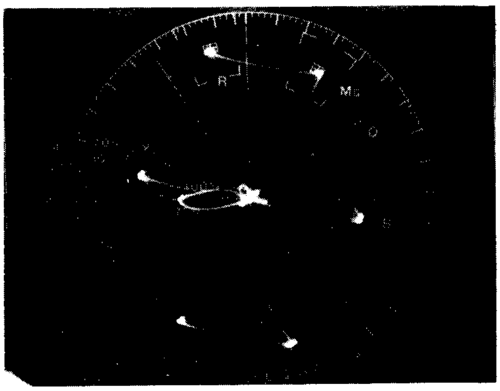


Fig. 4-2-6

[Adjustment for PAL model]

- o Observe the vectorscope.
- o Set the gain switch of the vectorscope to 75%.
- o Adjust VR104 (BURST PHASE) and the phase control of vectorscope so that the burst vectors position on the burst axes on the vectorscope. (Fig. 4-2-7)

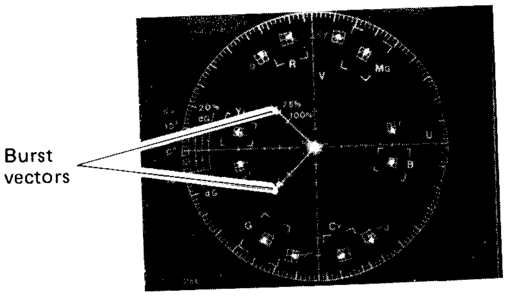


Fig. 4-2-7

- o Adjust VR108 (R-Y/B-Y BALANCE), VR109 (C/B CHROMA GAIN), CT1 (SC 90° PHASE), VR103 (SC R BALANCE) and CT1 (SC 270° PHASE) so that the all vectors fall into their respective boxes on the vectorscope. (Fig. 4-2-8)

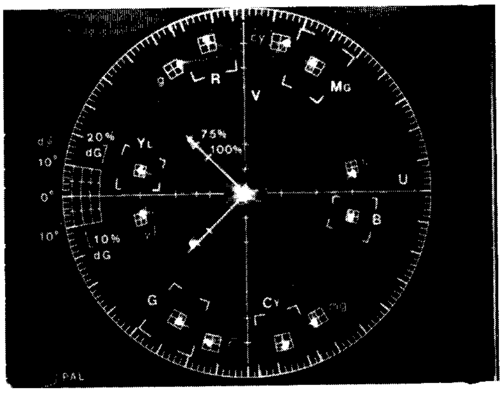


Fig. 4-2-8

- Repeat adjusting above steps until all vectors fall into their respective boxes on the vectorscope.
- Adjust VR105 (BURST GAIN) so that the burst vectors alignson the burst axes, their amplitude are at 75% position and other vectros fall into their respective boxes on the vectorscope. (Fig. 4-2-9)

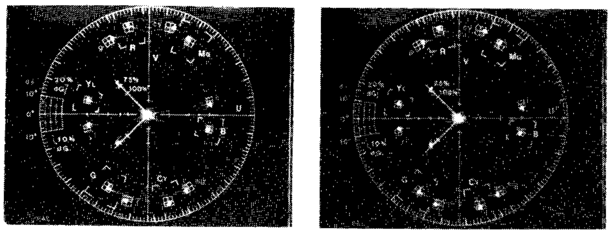

NO GOOD GOOD

Fig. 4-2-9

4-3 Camera Remote Controller WV-CR12 Adjustment

- Disassemble the Camera remoto Controller WV-CR12 while referring to 2-3 Camera Remoto Controller WV-CR12 on page 8 and 9
- Refer to page 17 for the test points and adjusting controls.

(a) Connection

- Install the 1" viewfinder on the camera remote controller and connect the viewfinder connector to the EVF Connector on the Camera Remote Controller.
- Connect the control cable between the EVF/Camera Remote Connector on the camera and the Camera Connector on the Camera Remote Controller.
- Connect the Monitor Output Connector on the Camera Remote Controller to the Video Input Connector of Color Monitor using a coaxial cable.
- Connect the camera cable from the Power Supply to the camera. (Fig. 4-3-1)

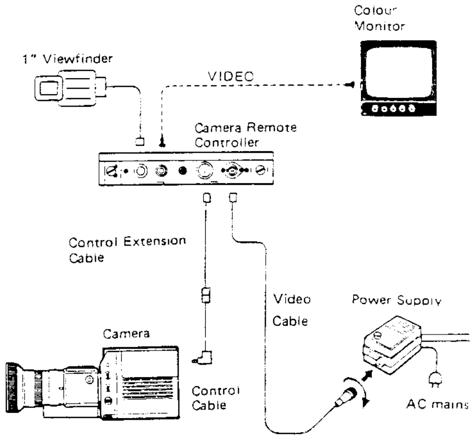


Fig. 4-3-1

(b) + 5V adjustment

Test point:	TP2 (+ 5V)	CR Main board
Adjust:	VR1 (+ 5V ADJ)	CR Main board

- Connect the digital voltmeter (DVM) Probe between TP2 (+ 5V) and TP3 (GND) ground.
- Adjust VR1 (+ 5V ADJ) for + 5.0V ± 0.05V.

(c) Timer frequency adjustment

Test point:	TP5 (TIMER FREQ)	CR Main board
Adjust:	CT1 (TIMER FREQ ADJ)	CR Main board

- Connect the frequency counter to TP5 (TIMER FREQ) and TP3 (GND) ground.
- Adjust CT1 (TIMER FREQ ADJ) for 32.768KHz ± 0.03KHz.

4-4 Pan/Tilt Head WV-PH10 Adjustment

- Disassemble the Pan/Tilt Head WV-PH10 while referring to 2-4 Pan/Tilt Head WV-PH10 on page 9.
- Refer to page 17 for the test points and adjusting controls.

(a) Connection and setting up for adjustment

Connection

- Install the 1" viewfinder on the camera remote controller and connect the viewfinder connector to the EVF Connector on the Camera Remote Controller.
- Connect the control cable between the EVF/Camera Remote Connector on the camera and the Camera Connector on the Camera Remote Controller.
- Connect the Monitor Output Connector on the Camera Remote Controller to the Video Input Connector of Color Monitor using a coaxial cable.
- Connect the remote control cable/connector on the pan/tilt head to the 5-pin Pan/Tilt Connector on the camera.

Position of switch on the Camera Remote Controller and Pan/Tilt Head

(Camera Remote Controller)
Operation Switch ——————— ON
Lock Switch ——————— OFF
Pan/Tilt-Lens Selection Switch —— Pan/Tilt

(Pan/Tilt Head)
Operation Switch ——————— ON

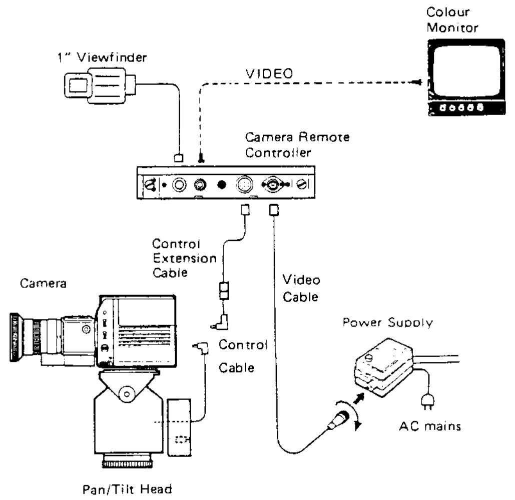

Colour Monitor
1" Viewfinder
VIDEO
Camera Remote Controller
Control Extension Cable
Camera
Video Cable
Power Supply
Control Cable
AC mains
Pan/Tilt Head

Fig. 4-4-1

(b) Panning speed adjustment

Test piont:	Pin 7 of IC3	Control board
Adjust:	VR1 (PANNING SPEED SET)	Control board

- o Connect the digital voltmeter (DVM) probe between pin 7 of IC3 and pin 4 of CN1 (ground).
- o Press the LEFT switch on the Camera Remote Controller until the Pan/Tilt head stops at the left end.
- o Adjust VR1 (PANNING SPEED SET) for +5.1V ± 0.01V.

(c) Tilting speed adjustment

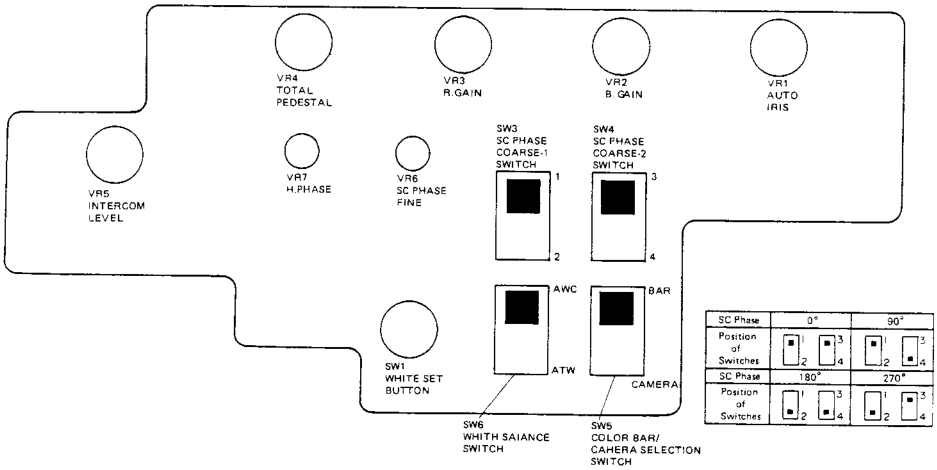
Test point:	Pin 7 of IC4	Control board
Adjust:	VR2 (TILTING SPEED SET)	Control board

- o Connect the digital voltmeter (DVM) probe between pin 7 of IC4 and pin 4 of CN1 (ground).
- o Press the UP switch on the Camera Remote Controller until the Pan/Tilt head stops at the upper end.
- o Adjust VR2 (TILTING SPEED SET) for +5.1V ± 0.01V.

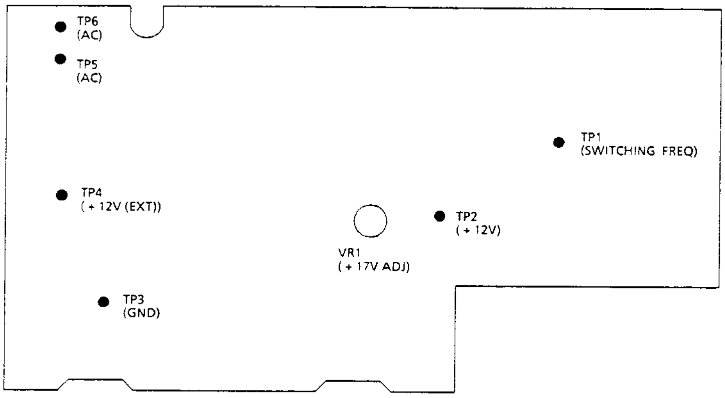
LOCATION OF TEST POINTS AND ADJUSTING CONTROLS
REMOTE CONTROL UNIT (RCU) WV-RC35

CONTROL BOARD

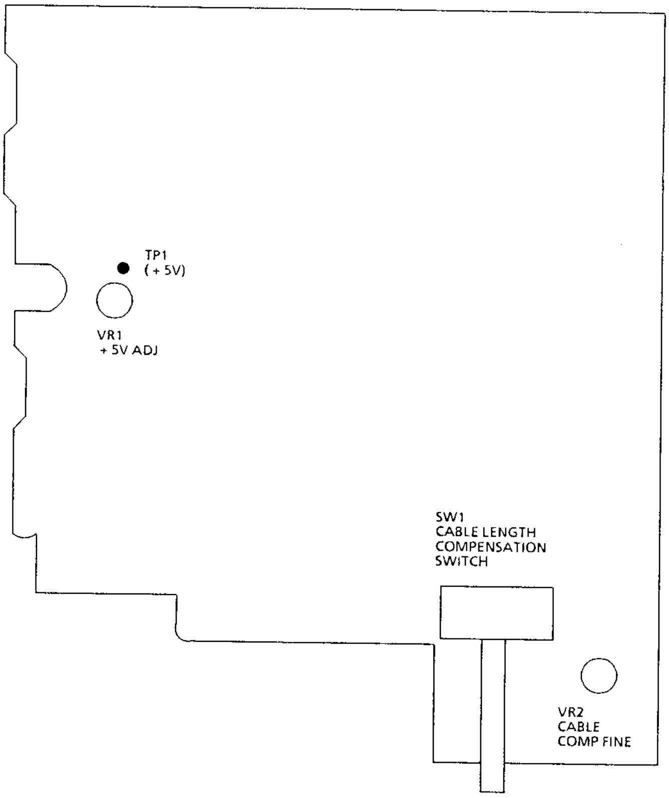
—Component Side—


VR4
TOTAL
PEDESTAL
VR3
R.GAIN
VR2
B. GAIN
VR1
AUTO
IRIS
VR5
INTERCOM
LEVEL
VR7
H.PHASE
VR6
SC PHASE
FINE
SW3
SC PHASE
COARSE-1
SWITCH
SW4
SC PHASE
COARSE-2
SWITCH
1
2
3
4
AWC
ATW
BAR
CAMERA
SW1
WHITE SET
BUTTON
SW6
WHITH SAIANCE
SWITCH
SW5
COLOR BAR/
CAHERA SELECTION
SWITCH
SC Phase
0°
90°
Position of Switches
SC Phase
180°
270°
Position of Switches

POWER BOARD


TP6
(AC)
TP5
(AC)
TP1
(SWITCHING FREQ)
TP4
(+12V (EXT))
TP2
(+12V)
VR1
(+17V ADJ)
TP3
(GND)

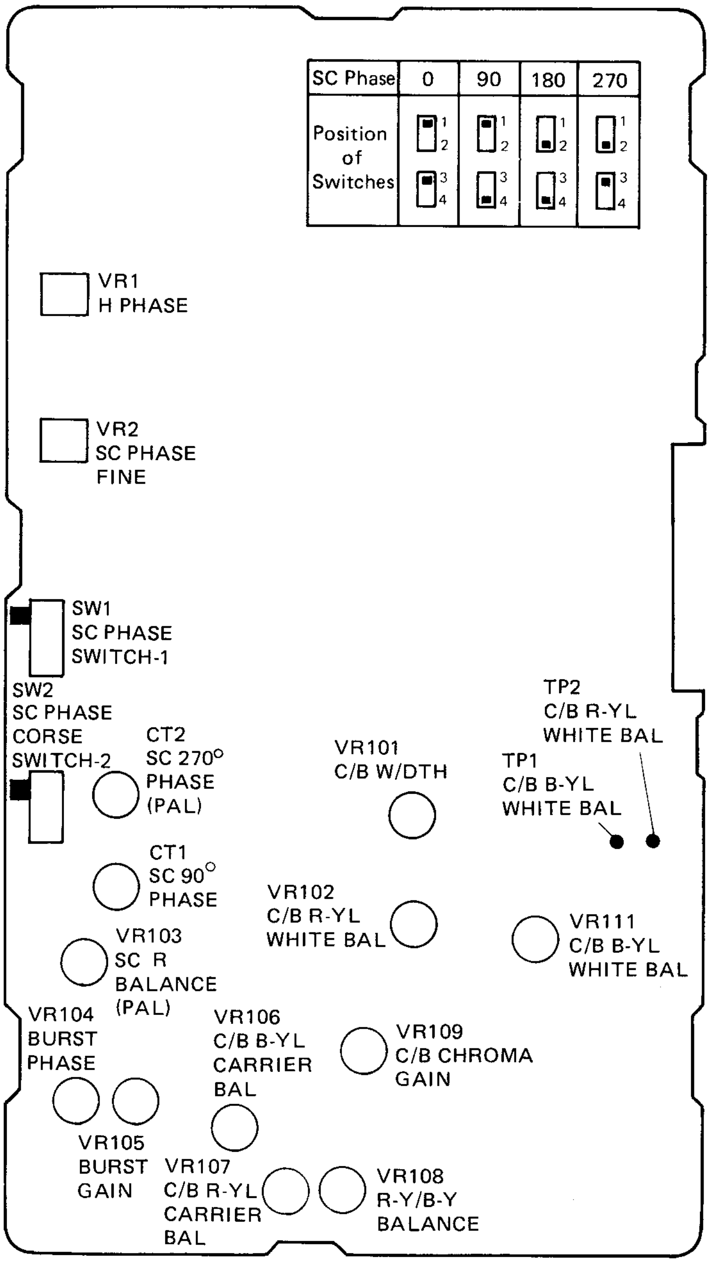
MAIN BOARD


TP1
(+5V)
VR1
+5V ADJ
SW1
CABLE LENGTH
COMPENSATION
SWITCH
VR2
CABLE
COMP FINE

RCU ADAPTOR WV-AD37

— Component Side —

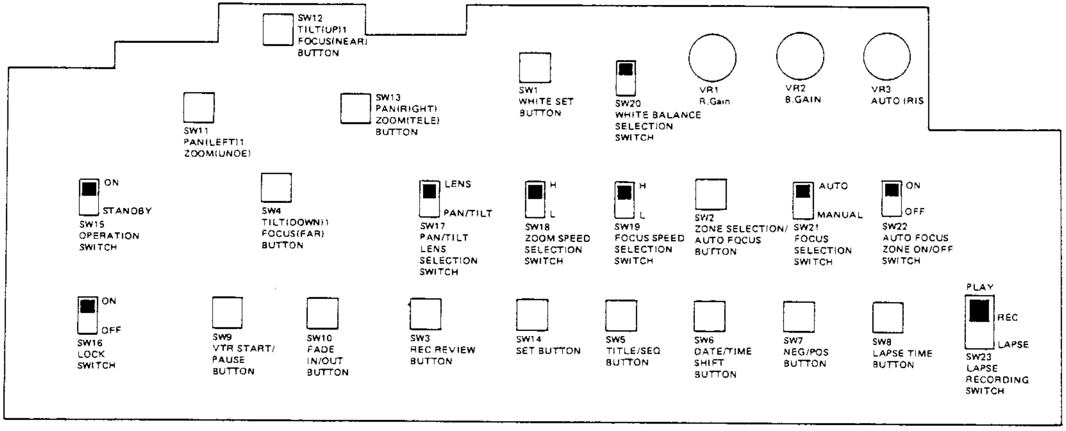
MAIN BOARD


SC Phase
0
90
180
270
Position of Switches
1
2
3
4
VR1
H PHASE
VR2
SC PHASE
FINE
SW1
SC PHASE
SWITCH-1
SW2
SC PHASE
CORSE
SWITCH-2
CT2
SC 270°
PHASE
(PAL)
CT1
SC 90°
PHASE
VR101
C/B W/DTH
TP2
C/B R-YL
WHITE BAL
TP1
C/B B-YL
WHITE BAL
VR102
C/B R-YL
WHITE BAL
VR111
C/B B-YL
WHITE BAL
VR103
SC R
BALANCE
(PAL)
VR104
BURST
PHASE
VR106
C/B B-YL
CARRIER
BAL
VR109
C/B CHROMA
GAIN
VR105
BURST
GAIN
VR107
C/B R-YL
CARRIER
BAL
VR108
R-Y/B-Y
BALANCE

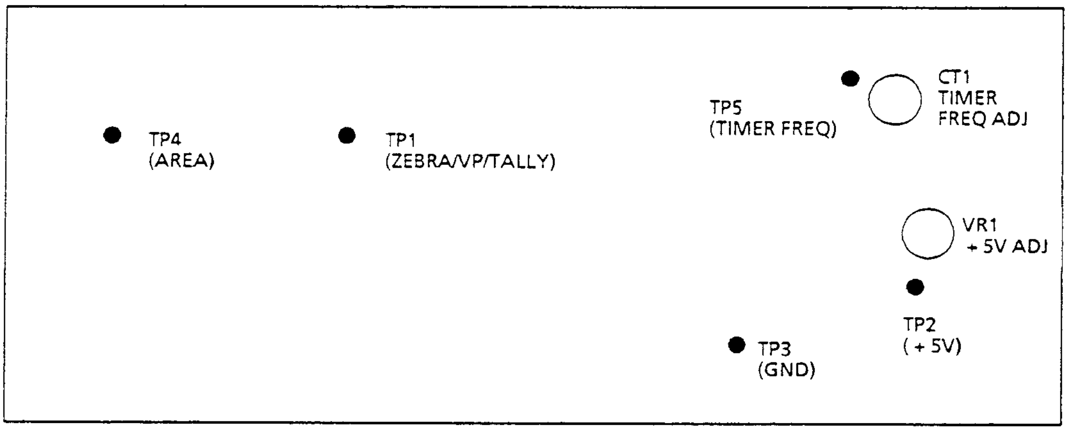
CAMERA REMOTO CONTROLLER WV-CR12

CONTROL BOARD

—Component Side—

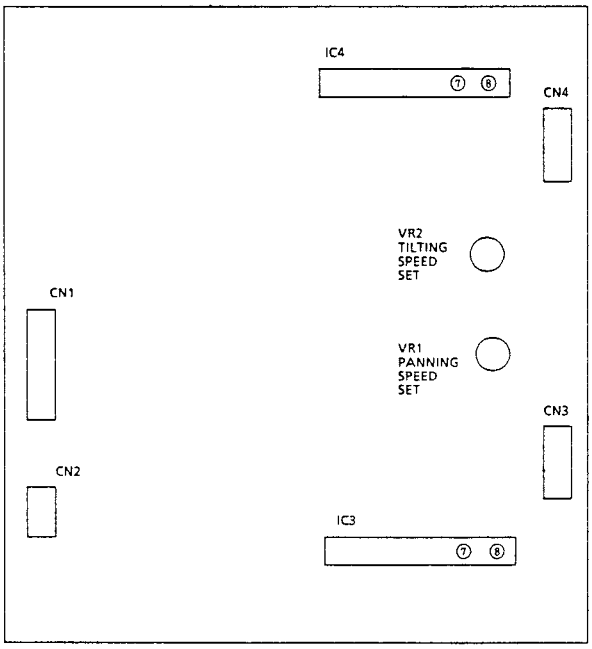

SW12
TILT(UP)/
FOCUS(NEAR)
BUTTON
SW11
PAN(LEFT)/
ZOOM(UNOE)
SW13
PAN(RIGHT)
ZOOM(TELE)
BUTTON
SW1
WHITE SET
BUTTON
SW20
WHITE BALANCE
SELECTION
SWITCH
VR1
R.Gain
VR2
B.GAIN
VR3
AUTO IRIS
ON
STANDBY
SW15
OPERATION
SWITCH
SW4
TILT(DOWN)/
FOCUS(FAR)
BUTTON
LENS
PAN/TILT
SW17
PAN/TILT
LENS
SELECTION
SWITCH
H
L
SW18
ZOOM SPEED
SELECTION
SWITCH
H
L
SW19
FOCUS SPEED
SELECTION
SWITCH
SW2
ZONE SELECTION/
AUTO FOCUS
BUTTON
AUTO
MANUAL
SW21
FOCUS
SELECTION
SWITCH
ON
OFF
SW22
AUTO FOCUS
ZONE ON/OFF
SWITCH
ON
OFF
SW16
LOCK
SWITCH
SW9
VTR START/
PAUSE
BUTTON
SW10
FADE
IN/OUT
BUTTON
SW3
REC REVIEW
BUTTON
SW14
SET BUTTON
SW5
TITLE/SEQ
BUTTON
SW6
DATE/TIME
SHIFT
BUTTON
SW7
NEG/POS
BUTTON
SW8
LAPSE TIME
BUTTON
PLAY
REC
LAPSE
SW23
LAPSE
RECORDING
SWITCH

MAIN BOARD


TP4
(AREA)
TP1
(ZEBRA/VP/TALLY)
TP5
(TIMER FREQ)
CT1
TIMER
FREQ ADJ
VR1
+5V ADJ
TP2
(+5V)
TP3
(GND)

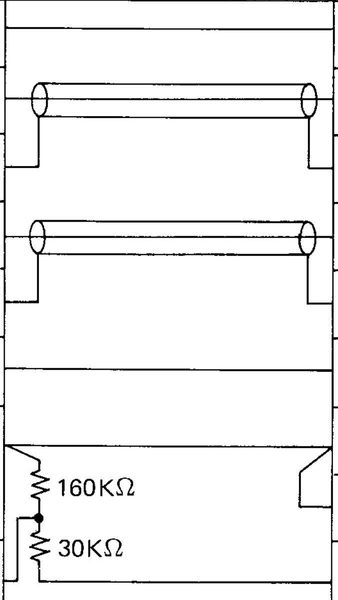
PAN/TILT HAED WV-PH10

CONTROL BOARD


IC4
⑦ ⑧
CN4
VR2
TILTING
SPEED
SET
CN1
VR1
PANNING
SPEED
SET
CN3
CN2
IC3
⑦ ⑧

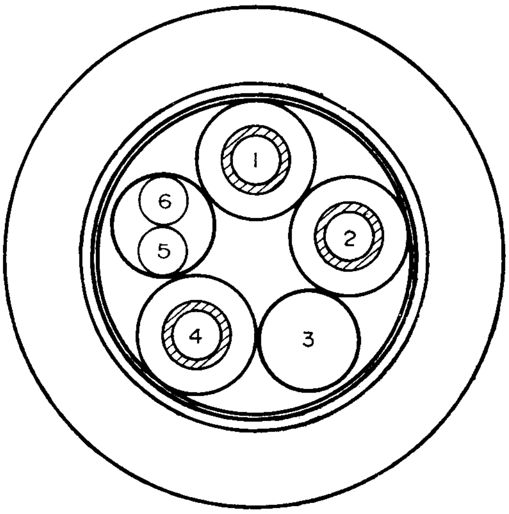
CABLE INFORMATION

CONTROL CABLE

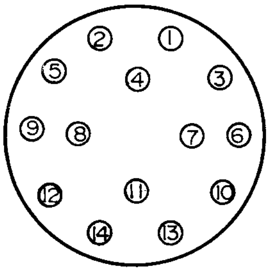


14 Pin Connector Pin No.	Wire No.	Signal	UL No.	Product Description	AWG Size	Connection 14 Pin Side	Connection 10 Pin Side	10 Pin Connector Pin No.
2	3	+12V	1571	*1	16			10
3	2	AUDIO (L)	1571	COXIAL CABLE	24			7
4&5		AUDIO GROUND	1571		22			8
6	1	VIDEO	1631	COXIAL CABLE	28			1
7		VIDEO GROUND	1631		22			2
14	5	STANDBY/L CH	1061	*2	26			5
1	—	GROUND	—	SHIELD CABLE	20			6 4
13	6	REC START/ PAUSE CONT	1061	*2	26			6
8		NOT USED						3
9		NOT USED						
10		NOT USED						
11		NOT USED						
12		NOT USED						

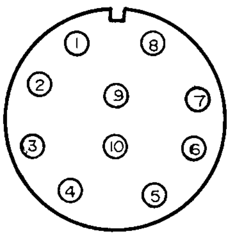
NOTE : *1 Tinned Copper, vinyl insulated, conductors cable
: *2 2 Conductors shield cable.



Section of Cable



14P Connector

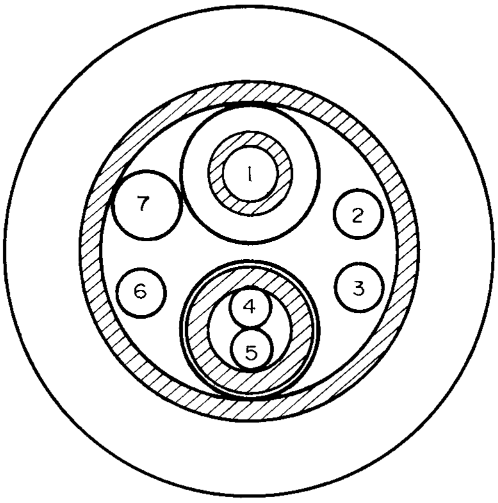


10P Connector

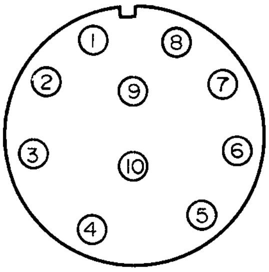
WV-CA11

10 Pin Connector No.	Wire No.	Signal	UL No.	Product Description	AWG No.	10 Pin Connector No.
1	1	VIDEO	1631	COXIAL CABLE	28	1
2		VIDEO GROUND				2
3	2	SERIAL DATA	1571	*1	28	3
4	3	SERIAL CLOCK	1571	*1	28	4
5	4	STANDBY/L CH	1571	*2	28	5
6	6	REC START/ PAUSE CONT	1571	*1	28	6
7	5	AUDIO (L)	1571	*2	28	7
8		AUDIO GROUND				8
9		GROUND		SHIELD CABLE		9
10	7	+12V	1571	*1	24	10

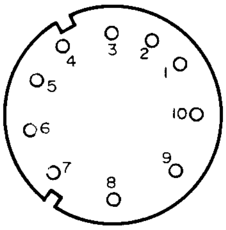
NOTE : *1 Tinned Copper, vinyl Insulated, Conductors Cabled.
: *2 2 Conductors Shild Cabled.



Section of Cable

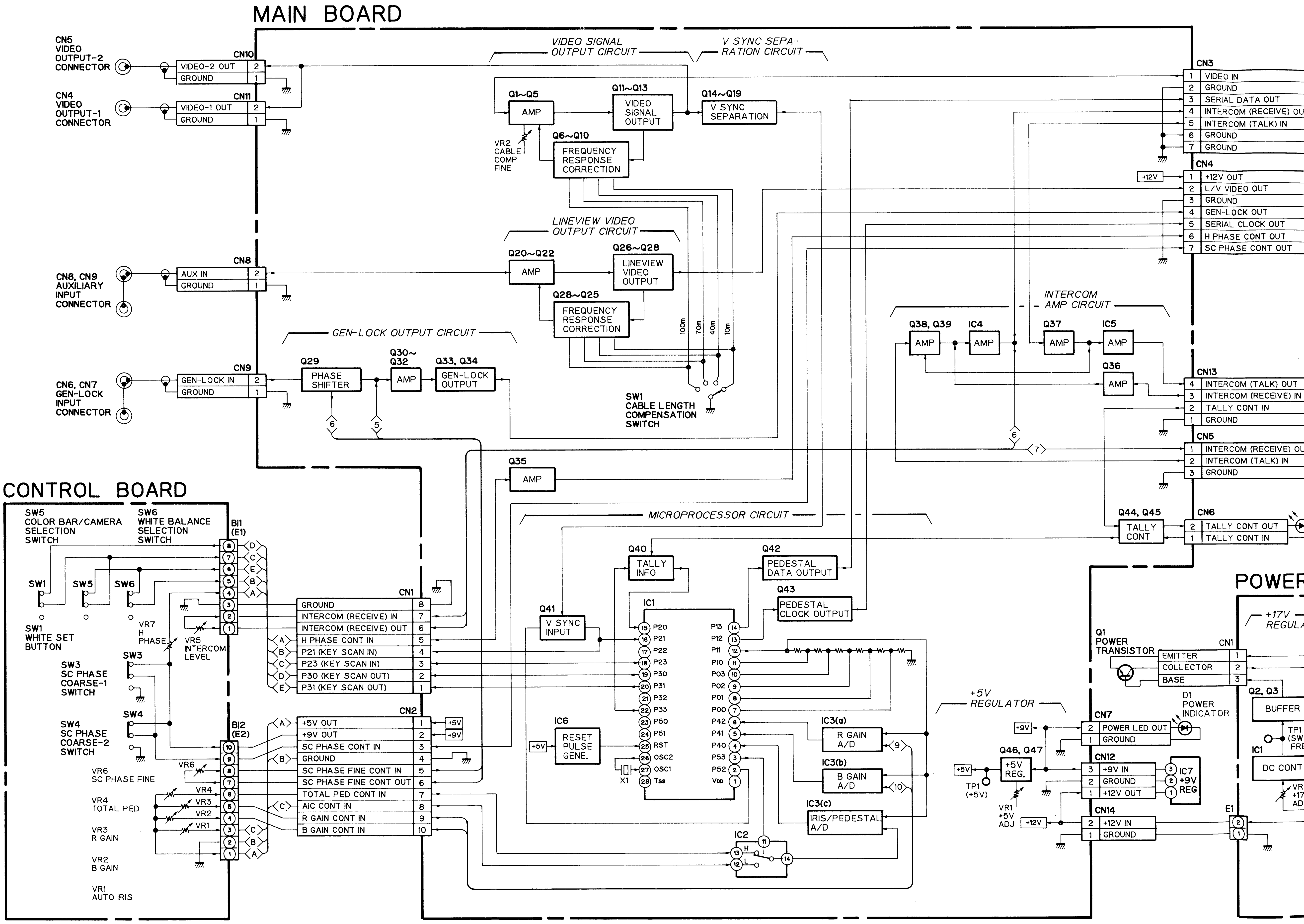


10Pin Connector
(Camera side)

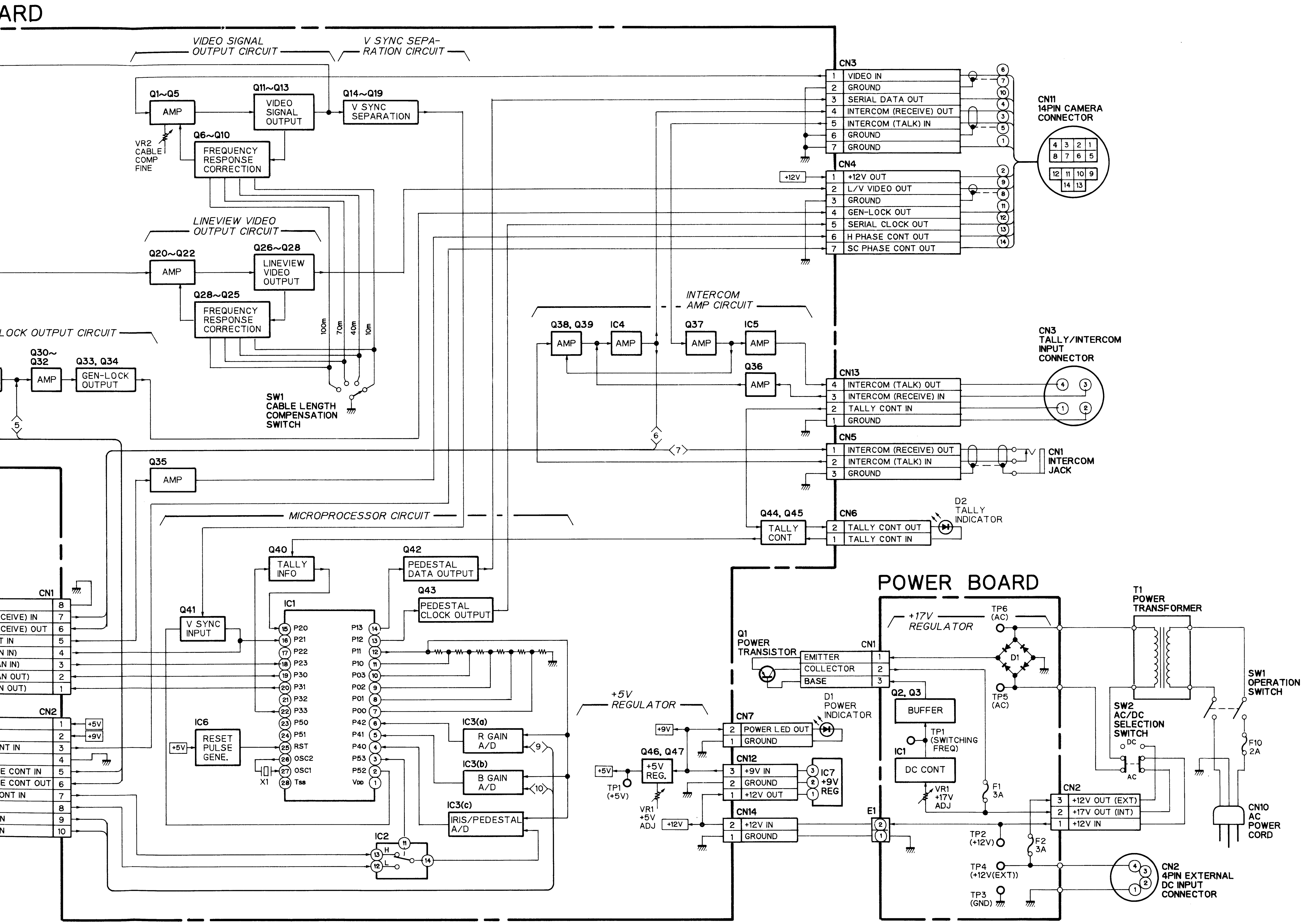


10 Pin Connector
(WV-CR12 Side)

BLOCK DIAGRAM OF REMOTE CONTROL UNIT WV-RC35

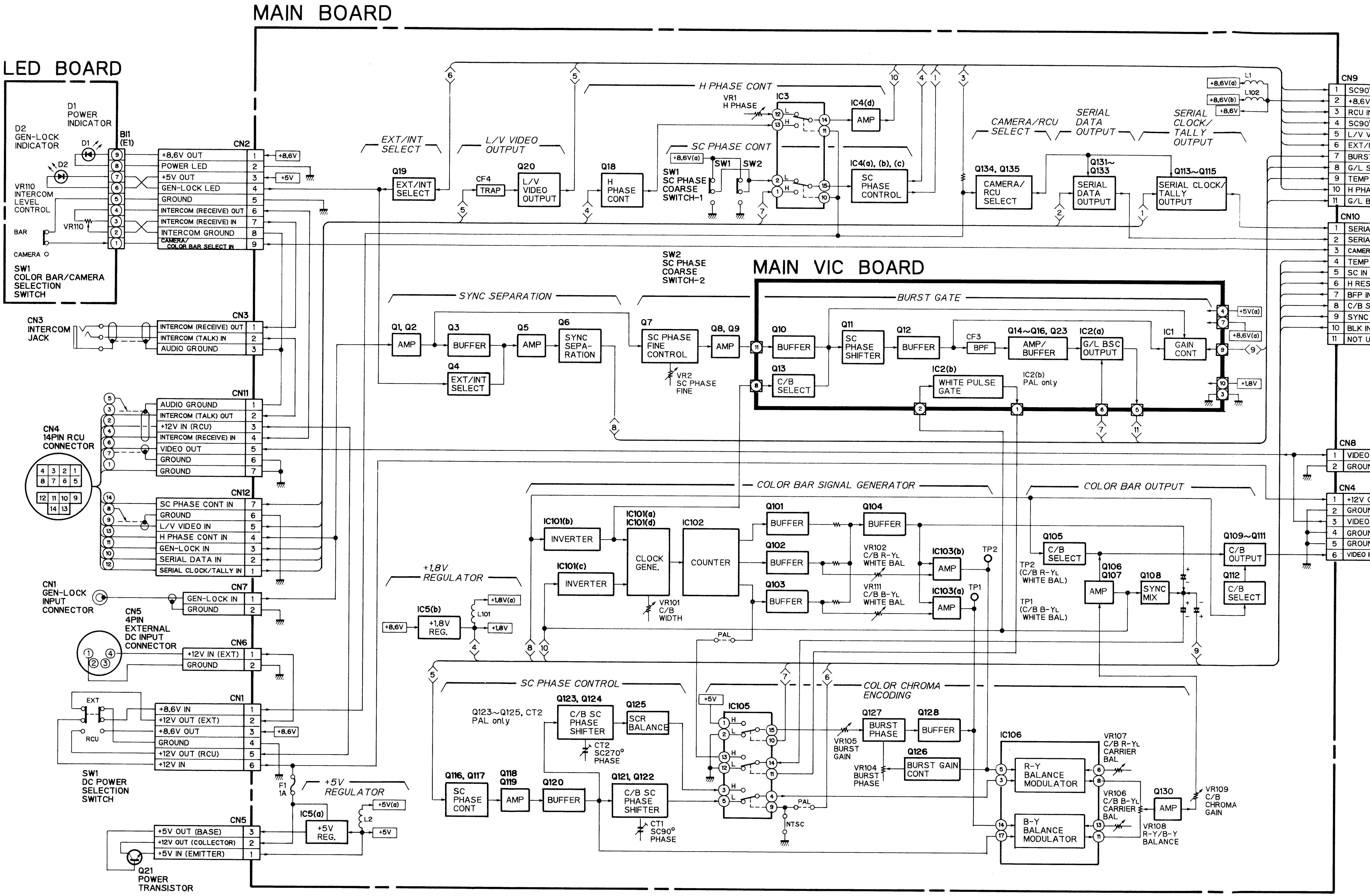

MAIN BOARD
CN5 VIDEO OUTPUT-2 CONNECTOR
CN10
VIDEO-2 OUT
GROUND
CN4 VIDEO OUTPUT-1 CONNECTOR
CN11
VIDEO-1 OUT
GROUND
CN8, CN9 AUXILIARY INPUT CONNECTOR
CN8
AUX IN
GROUND
CN6, CN7 GEN-LOCK INPUT CONNECTOR
CN9
GEN-LOCK IN
GROUND
VIDEO SIGNAL OUTPUT CIRCUIT
V SYNC SEPARATION CIRCUIT
Q1~Q5
AMP
VR2 CABLE COMP FINE
Q11~Q13
VIDEO SIGNAL OUTPUT
Q14~Q19
V SYNC SEPARATION
Q6~Q10
FREQUENCY RESPONSE CORRECTION
LINEVIEW VIDEO OUTPUT CIRCUIT
Q20~Q22
AMP
Q26~Q28
LINEVIEW VIDEO OUTPUT
Q28~Q25
FREQUENCY RESPONSE CORRECTION
100m
70m
40m
10m
SW1 CABLE LENGTH COMPENSATION SWITCH
GEN-LOCK OUTPUT CIRCUIT
Q29
PHASE SHIFTER
Q30~Q32
AMP
Q33, Q34
GEN-LOCK OUTPUT
Q35
AMP
CN3
VIDEO IN
GROUND
SERIAL DATA OUT
INTERCOM (RECEIVE) OU
INTERCOM (TALK) IN
GROUND
GROUND
CN4
+12V
+12V OUT
L/V VIDEO OUT
GROUND
GEN-LOCK OUT
SERIAL CLOCK OUT
H PHASE CONT OUT
SC PHASE CONT OUT
INTERCOM AMP CIRCUIT
Q38, Q39
AMP
IC4
AMP
Q37
AMP
IC5
AMP
Q36
AMP
CN13
INTERCOM (TALK) OUT
INTERCOM (RECEIVE) IN
TALLY CONT IN
GROUND
CN5
INTERCOM (RECEIVE) OU
INTERCOM (TALK) IN
GROUND
MICROPROCESSOR CIRCUIT
Q44, Q45
TALLY CONT
CN6
TALLY CONT OUT
TALLY CONT IN
Q40
TALLY INFO
Q42
PEDESTAL DATA OUTPUT
Q43
PEDESTAL CLOCK OUTPUT
Q41
V SYNC INPUT
IC1
P20 P21 P22 P23 P30 P31 P32 P33 P50 P51 RST OSC2 OSC1 Tss
P13 P12 P11 P10 P03 P02 P01 P00 P42 P41 P40 P53 P52 VDD
IC6
RESET PULSE GENE.
+5V
X1
IC3(a)
R GAIN A/D
IC3(b)
B GAIN A/D
IC3(c)
IRIS/PEDESTAL A/D
IC2
H
L
+5V REGULATOR
Q46, Q47
+5V REG.
TP1 (+5V)
VR1 +5V ADJ
+9V
+12V
Q1 POWER TRANSISTOR
CN1
EMITTER
COLLECTOR
BASE
D1 POWER INDICATOR
CN7
POWER LED OUT
GROUND
CN12
+9V IN
GROUND
+12V OUT
IC7 +9V REG
CN14
+12V IN
GROUND
E1
POWER
+17V REGULA
Q2, Q3
BUFFER
TP1 (SW FRE
IC1
DC CONT
VR +17 AD
CONTROL BOARD
SW5 COLOR BAR/CAMERA SELECTION SWITCH
SW6 WHITE BALANCE SELECTION SWITCH
SW1
SW5
SW6
SW1 WHITE SET BUTTON
SW3 SC PHASE COARSE-1 SWITCH
SW4 SC PHASE COARSE-2 SWITCH
VR7 H PHASE
VR5 INTERCOM LEVEL
VR6 SC PHASE FINE
VR4 TOTAL PED
VR3 R GAIN
VR2 B GAIN
VR1 AUTO IRIS
BI1 (E1)
BI2 (E2)
CN1
GROUND
INTERCOM (RECEIVE) IN
INTERCOM (RECEIVE) OUT
H PHASE CONT IN
P21 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
CN2
+5V OUT
+9V OUT
SC PHASE CONT IN
GROUND
SC PHASE FINE CONT IN
SC PHASE FINE CONT OUT
TOTAL PED CONT IN
AIC CONT IN
R GAIN CONT IN
B GAIN CONT IN

BLOCK DIAGRAM OF REMOTE CONTROL UNIT WV-RC35

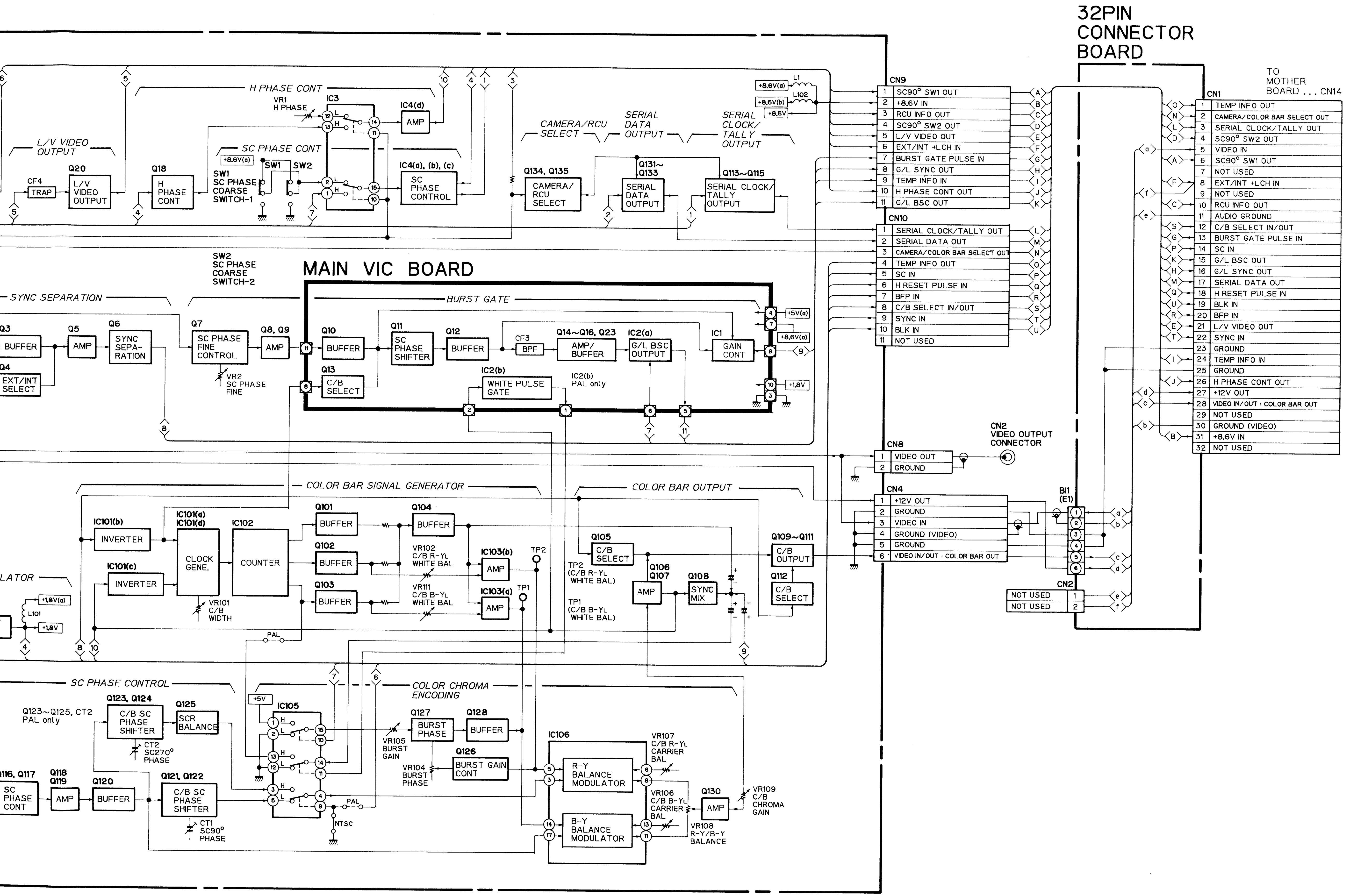


ARD
VIDEO SIGNAL OUTPUT CIRCUIT
V SYNC SEPARATION CIRCUIT
Q1~Q5
AMP
Q11~Q13
VIDEO SIGNAL OUTPUT
Q14~Q19
V SYNC SEPARATION
VR2 CABLE COMP FINE
Q6~Q10
FREQUENCY RESPONSE CORRECTION
LINEVIEW VIDEO OUTPUT CIRCUIT
Q20~Q22
AMP
Q26~Q28
LINEVIEW VIDEO OUTPUT
Q28~Q25
FREQUENCY RESPONSE CORRECTION
100m
70m
40m
10m
SW1 CABLE LENGTH COMPENSATION SWITCH
LOCK OUTPUT CIRCUIT
Q30~Q32
AMP
Q33, Q34
GEN-LOCK OUTPUT
5
Q35
AMP
MICROPROCESSOR CIRCUIT
Q40
TALLY INFO
Q42
PEDESTAL DATA OUTPUT
Q43
PEDESTAL CLOCK OUTPUT
Q41
V SYNC INPUT
IC1
P20
P21
P22
P23
P30
P31
P32
P33
P50
P51
RST
OSC2
OSC1
Tss
P13
P12
P11
P10
P03
P02
P01
P00
P42
P41
P40
P53
P52
VDD
IC6
RESET PULSE GENE.
+5V
X1
IC3(a)
R GAIN A/D
IC3(b)
B GAIN A/D
IC3(c)
IRIS/PEDESTAL A/D
9
10
IC2
H
L
CN1
CEIVE) IN
CEIVE) OUT
T IN
N IN)
AN IN)
AN OUT)
N OUT)
CN2
+5V
+9V
NT IN
E CONT IN
E CONT OUT
ONT IN
N
N
INTERCOM AMP CIRCUIT
Q38, Q39
AMP
IC4
AMP
Q37
AMP
IC5
AMP
Q36
AMP
6
7
Q44, Q45
TALLY CONT
CN3
VIDEO IN
GROUND
SERIAL DATA OUT
INTERCOM (RECEIVE) OUT
INTERCOM (TALK) IN
GROUND
GROUND
CN4
+12V
+12V OUT
L/V VIDEO OUT
GROUND
GEN-LOCK OUT
SERIAL CLOCK OUT
H PHASE CONT OUT
SC PHASE CONT OUT
CN11 14PIN CAMERA CONNECTOR
CN13
INTERCOM (TALK) OUT
INTERCOM (RECEIVE) IN
TALLY CONT IN
GROUND
CN3 TALLY/INTERCOM INPUT CONNECTOR
CN5
INTERCOM (RECEIVE) OUT
INTERCOM (TALK) IN
GROUND
CN1 INTERCOM JACK
CN6
TALLY CONT OUT
TALLY CONT IN
D2 TALLY INDICATOR
+5V REGULATOR
+9V
Q46, Q47
+5V REG.
TP1 (+5V)
VR1 +5V ADJ
+12V
Q1 POWER TRANSISTOR
EMITTER
COLLECTOR
BASE
CN7
POWER LED OUT
GROUND
D1 POWER INDICATOR
CN12
+9V IN
GROUND
+12V OUT
IC7 +9V REG
CN14
+12V IN
GROUND
E1
POWER BOARD
+17V REGULATOR
CN1
TP6 (AC)
D1
TP5 (AC)
Q2, Q3
BUFFER
TP1 (SWITCHING FREQ)
IC1
DC CONT
VR1 +17V ADJ
F1 3A
TP2 (+12V)
F2 3A
TP4 (+12V(EXT))
TP3 (GND)
CN2
+12V OUT (EXT)
+17V OUT (INT)
+12V IN
T1 POWER TRANSFORMER
SW1 OPERATION SWITCH
SW2 AC/DC SELECTION SWITCH
DC
AC
F10 2A
CN10 AC POWER CORD
CN2 4PIN EXTERNAL DC INPUT CONNECTOR

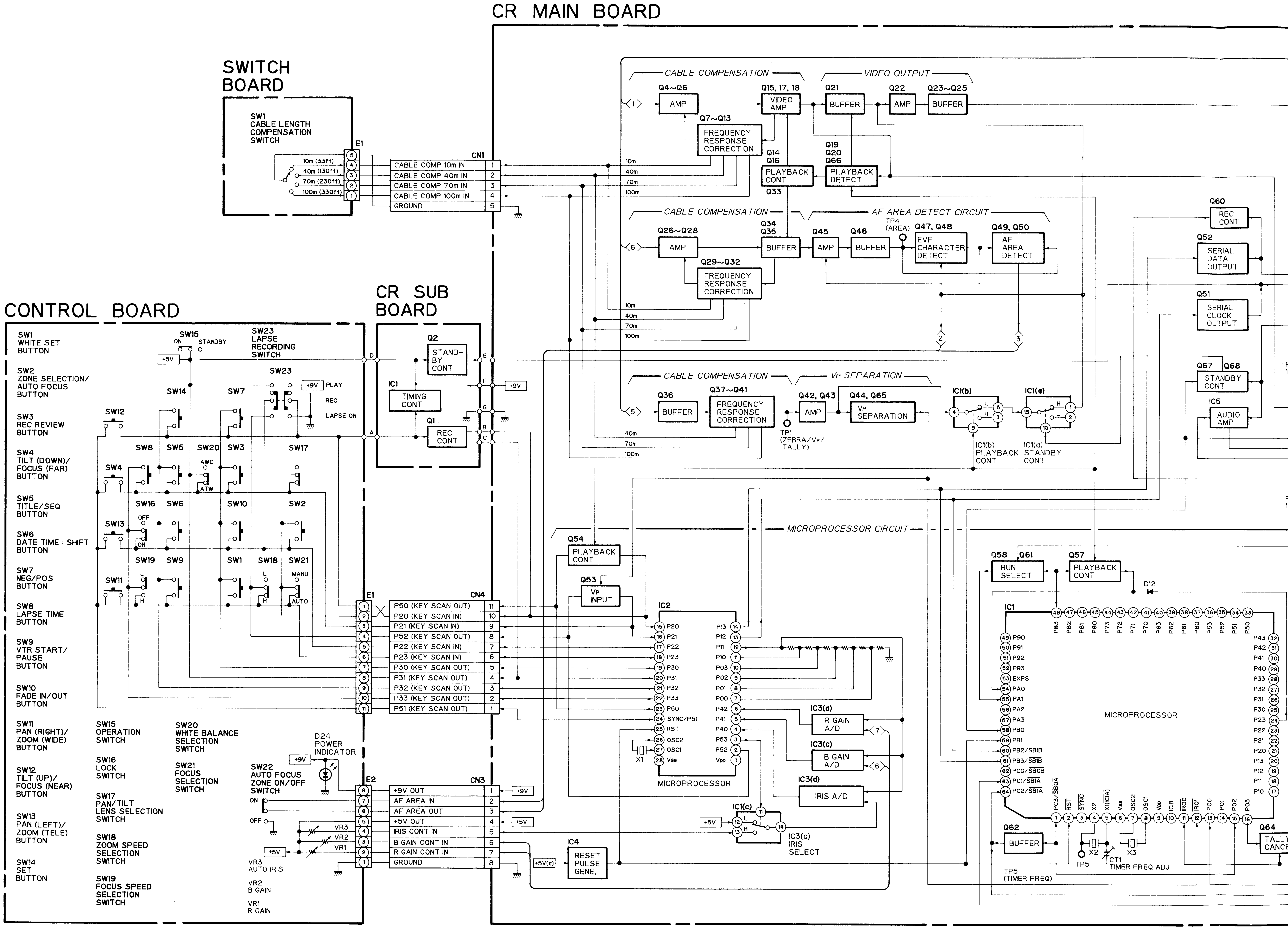
BLOCK DIAGRAM OF RCU ADAPTOR WV-AD37


MAIN BOARD
LED BOARD
MAIN VIC BOARD
D1 POWER INDICATOR
D2 GEN-LOCK INDICATOR
VR110 INTERCOM LEVEL CONTROL
BAR
CAMERA
SW1 COLOR BAR/CAMERA SELECTION SWITCH
BI1 (E1)
CN2
+8.6V OUT
POWER LED
+5V OUT
GEN-LOCK LED
GROUND
INTERCOM (RECEIVE) OUT
INTERCOM (RECEIVE) IN
INTERCOM GROUND
CAMERA/COLOR BAR SELECT IN
CN3 INTERCOM JACK
INTERCOM (RECEIVE) OUT
INTERCOM (TALK) IN
AUDIO GROUND
CN4 14PIN RCU CONNECTOR
CN11
AUDIO GROUND
INTERCOM (TALK) OUT
+12V IN (RCU)
INTERCOM (RECEIVE) IN
VIDEO OUT
GROUND
CN12
SC PHASE CONT IN
GROUND
L/V VIDEO IN
H PHASE CONT IN
GEN-LOCK IN
SERIAL DATA IN
SERIAL CLOCK/TALLY IN
CN1 GEN-LOCK INPUT CONNECTOR
CN7
GEN-LOCK IN
GROUND
CN5 4PIN EXTERNAL DC INPUT CONNECTOR
CN6
+12V IN (EXT)
GROUND
CN1
EXT
RCU
+8.6V IN
+12V OUT (EXT)
+8.6V OUT
GROUND
+12V OUT (RCU)
+12V IN
SW1 DC POWER SELECTION SWITCH
CN5
+5V OUT (BASE)
+12V OUT (COLLECTOR)
+5V IN (EMITTER)
Q21 POWER TRANSISTOR
F1 1A
+5V REGULATOR
IC5(a) +5V REG.
L2
+5V(a)
+5V
+8.6V
EXT/INT SELECT
Q19 EXT/INT SELECT
L/V VIDEO OUTPUT
CF4 TRAP
Q20 L/V VIDEO OUTPUT
Q18 H PHASE CONT
H PHASE CONT
VR1 H PHASE
IC3
IC4(d) AMP
SC PHASE CONT
+8.6V(a)
SW1 SC PHASE COARSE SWITCH-1
SW2
IC4(a), (b), (c) SC PHASE CONTROL
CAMERA/RCU SELECT
Q134, Q135 CAMERA/RCU SELECT
SERIAL DATA OUTPUT
Q131~Q133 SERIAL DATA OUTPUT
SERIAL CLOCK/TALLY OUTPUT
Q113~Q115 SERIAL CLOCK/TALLY OUTPUT
+8.6V(a)
+8.6V(b)
+8.6V
L1
L102
CN9
SC90
+8.6V
RCU I
SC90
L/V V
EXT/I
BURS
G/L S
TEMP
H PHA
G/L B
CN10
SERIA
SERIA
CAMER
TEMP
SC IN
H RES
BFP IN
C/B S
SYNC
BLK IN
NOT U
SW2 SC PHASE COARSE SWITCH-2
SYNC SEPARATION
Q1, Q2 AMP
Q3 BUFFER
Q4 EXT/INT SELECT
Q5 AMP
Q6 SYNC SEPA-RATION
Q7 SC PHASE FINE CONTROL
VR2 SC PHASE FINE
Q8, Q9 AMP
BURST GATE
Q10 BUFFER
Q11 SC PHASE SHIFTER
Q12 BUFFER
CF3 BPF
Q14~Q16, Q23 AMP/BUFFER
IC2(a) G/L BSC OUTPUT
IC1 GAIN CONT
Q13 C/B SELECT
IC2(b) WHITE PULSE GATE
IC2(b) PAL only
+5V(a)
+8.6V(a)
+1.8V
CN8
VIDEO
GROUN
CN4
+12V
GROUN
VIDEO
GROUN
GROUN
VIDEO
+1.8V REGULATOR
IC5(b) +1.8V REG.
L101
+1.8V(a)
+1.8V
COLOR BAR SIGNAL GENERATOR
IC101(b) INVERTER
IC101(a) IC101(d) CLOCK GENE.
IC101(c) INVERTER
VR101 C/B WIDTH
IC102 COUNTER
Q101 BUFFER
Q102 BUFFER
Q103 BUFFER
Q104 BUFFER
VR102 C/B R-YL WHITE BAL
VR111 C/B B-YL WHITE BAL
IC103(b) AMP
IC103(a) AMP
TP2
TP1
PAL
COLOR BAR OUTPUT
Q105 C/B SELECT
TP2 (C/B R-YL WHITE BAL)
TP1 (C/B B-YL WHITE BAL)
Q106 Q107 AMP
Q108 SYNC MIX
Q109~Q111 C/B OUTPUT
Q112 C/B SELECT
SC PHASE CONTROL
Q123~Q125, CT2 PAL only
Q123, Q124 C/B SC PHASE SHIFTER
CT2 SC270° PHASE
Q125 SCR BALANCE
Q116, Q117 SC PHASE CONT
Q118 Q119 AMP
Q120 BUFFER
Q121, Q122 C/B SC PHASE SHIFTER
CT1 SC90° PHASE
+5V
IC105
NTSC
PAL
COLOR CHROMA ENCODING
Q127 BURST PHASE
Q128 BUFFER
VR105 BURST GAIN
VR104 BURST PHASE
Q126 BURST GAIN CONT
IC106
R-Y BALANCE MODULATOR
B-Y BALANCE MODULATOR
VR107 C/B R-YL CARRIER BAL
VR106 C/B B-YL CARRIER BAL
VR108 R-Y/B-Y BALANCE
Q130 AMP
VR109 C/B CHROMA GAIN

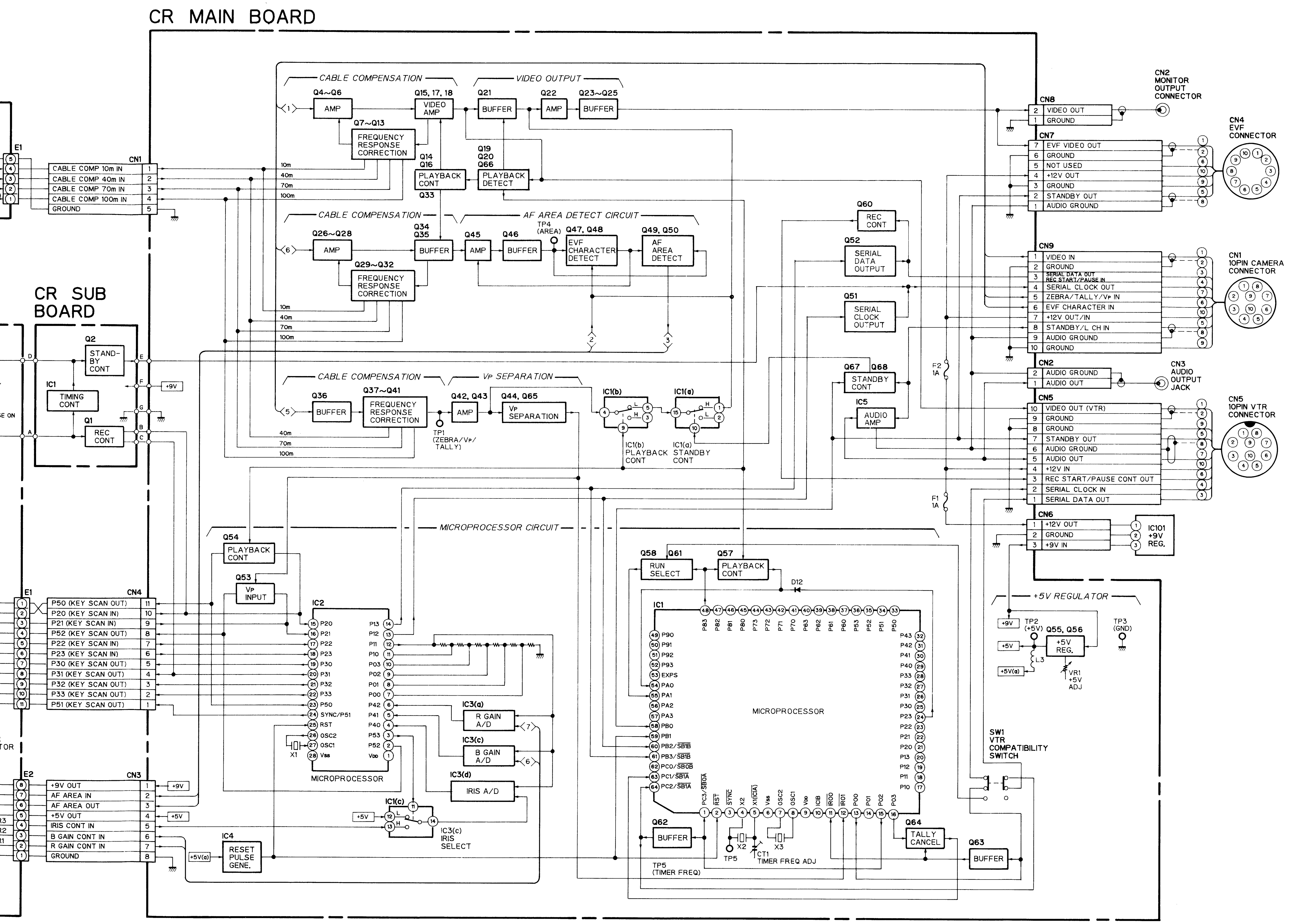
BLOCK DIAGRAM OF RCU ADAPTOR WV-AD37


32PIN CONNECTOR BOARD
TO MOTHER BOARD . . . CN14
MAIN VIC BOARD
H PHASE CONT
VR1 H PHASE
IC3
IC4(d) AMP
L/V VIDEO OUTPUT
CF4 TRAP
Q20 L/V VIDEO OUTPUT
Q18 H PHASE CONT
SC PHASE CONT
SW1 SC PHASE COARSE SWITCH-1
SW1 SW2
IC4(a), (b), (c) SC PHASE CONTROL
CAMERA/RCU SELECT
SERIAL DATA OUTPUT
SERIAL CLOCK/TALLY OUTPUT
Q134, Q135 CAMERA/RCU SELECT
Q131~Q133 SERIAL DATA OUTPUT
Q113~Q115 SERIAL CLOCK/TALLY OUTPUT
+8.6V(a) +8.6V(b) +8.6V L1 L102
SW2 SC PHASE COARSE SWITCH-2
SYNC SEPARATION
Q3 BUFFER
Q5 AMP
Q6 SYNC SEPA-RATION
Q4 EXT/INT SELECT
Q7 SC PHASE FINE CONTROL
VR2 SC PHASE FINE
Q8, Q9 AMP
BURST GATE
Q10 BUFFER
Q11 SC PHASE SHIFTER
Q12 BUFFER
CF3 BPF
Q14~Q16, Q23 AMP/BUFFER
IC2(a) G/L BSC OUTPUT
IC1 GAIN CONT
Q13 C/B SELECT
IC2(b) WHITE PULSE GATE
IC2(b) PAL only
+5V(a) +8.6V(a) +1.8V
CN9
1 SC90° SW1 OUT
2 +8.6V IN
3 RCU INFO OUT
4 SC90° SW2 OUT
5 L/V VIDEO OUT
6 EXT/INT +LCH IN
7 BURST GATE PULSE IN
8 G/L SYNC OUT
9 TEMP INFO IN
10 H PHASE CONT OUT
11 G/L BSC OUT
CN10
1 SERIAL CLOCK/TALLY OUT
2 SERIAL DATA OUT
3 CAMERA/COLOR BAR SELECT OUT
4 TEMP INFO OUT
5 SC IN
6 H RESET PULSE IN
7 BFP IN
8 C/B SELECT IN/OUT
9 SYNC IN
10 BLK IN
11 NOT USED
CN1
1 TEMP INFO OUT
2 CAMERA/COLOR BAR SELECT OUT
3 SERIAL CLOCK/TALLY OUT
4 SC90° SW2 OUT
5 VIDEO IN
6 SC90° SW1 OUT
7 NOT USED
8 EXT/INT +LCH IN
9 NOT USED
10 RCU INFO OUT
11 AUDIO GROUND
12 C/B SELECT IN/OUT
13 BURST GATE PULSE IN
14 SC IN
15 G/L BSC OUT
16 G/L SYNC OUT
17 SERIAL DATA OUT
18 H RESET PULSE IN
19 BLK IN
20 BFP IN
21 L/V VIDEO OUT
22 SYNC IN
23 GROUND
24 TEMP INFO IN
25 GROUND
26 H PHASE CONT OUT
27 +12V OUT
28 VIDEO IN/OUT : COLOR BAR OUT
29 NOT USED
30 GROUND (VIDEO)
31 +8.6V IN
32 NOT USED
CN8
1 VIDEO OUT
2 GROUND
CN2 VIDEO OUTPUT CONNECTOR
CN4
1 +12V OUT
2 GROUND
3 VIDEO IN
4 GROUND (VIDEO)
5 GROUND
6 VIDEO IN/OUT : COLOR BAR OUT
BI1 (E1)
CN2
NOT USED 1
NOT USED 2
COLOR BAR SIGNAL GENERATOR
IC101(b) INVERTER
IC101(a) IC101(d) CLOCK GENE.
IC102 COUNTER
IC101(c) INVERTER
VR101 C/B WIDTH
LATOR
+1.8V(a) +1.8V L101
Q101 BUFFER
Q102 BUFFER
Q103 BUFFER
Q104 BUFFER
VR102 C/B R-YL WHITE BAL
VR111 C/B B-YL WHITE BAL
IC103(b) AMP
IC103(a) AMP
TP2 TP1
PAL
COLOR BAR OUTPUT
Q105 C/B SELECT
TP2 (C/B R-YL WHITE BAL)
TP1 (C/B B-YL WHITE BAL)
Q106 Q107 AMP
Q108 SYNC MIX
Q109~Q111 C/B OUTPUT
Q112 C/B SELECT
SC PHASE CONTROL
Q123~Q125, CT2 PAL only
Q123, Q124 C/B SC PHASE SHIFTER
CT2 SC270° PHASE
Q125 SCR BALANCE
+5V
IC105
Q116, Q117 SC PHASE CONT
Q118 Q119 AMP
Q120 BUFFER
Q121, Q122 C/B SC PHASE SHIFTER
CT1 SC90° PHASE
PAL NTSC
COLOR CHROMA ENCODING
Q127 BURST PHASE
Q128 BUFFER
VR105 BURST GAIN
VR104 BURST PHASE
Q126 BURST GAIN CONT
IC106
R-Y BALANCE MODULATOR
B-Y BALANCE MODULATOR
VR107 C/B R-YL CARRIER BAL
VR106 C/B B-YL CARRIER BAL
VR108 R-Y/B-Y BALANCE
Q130 AMP
VR109 C/B CHROMA GAIN

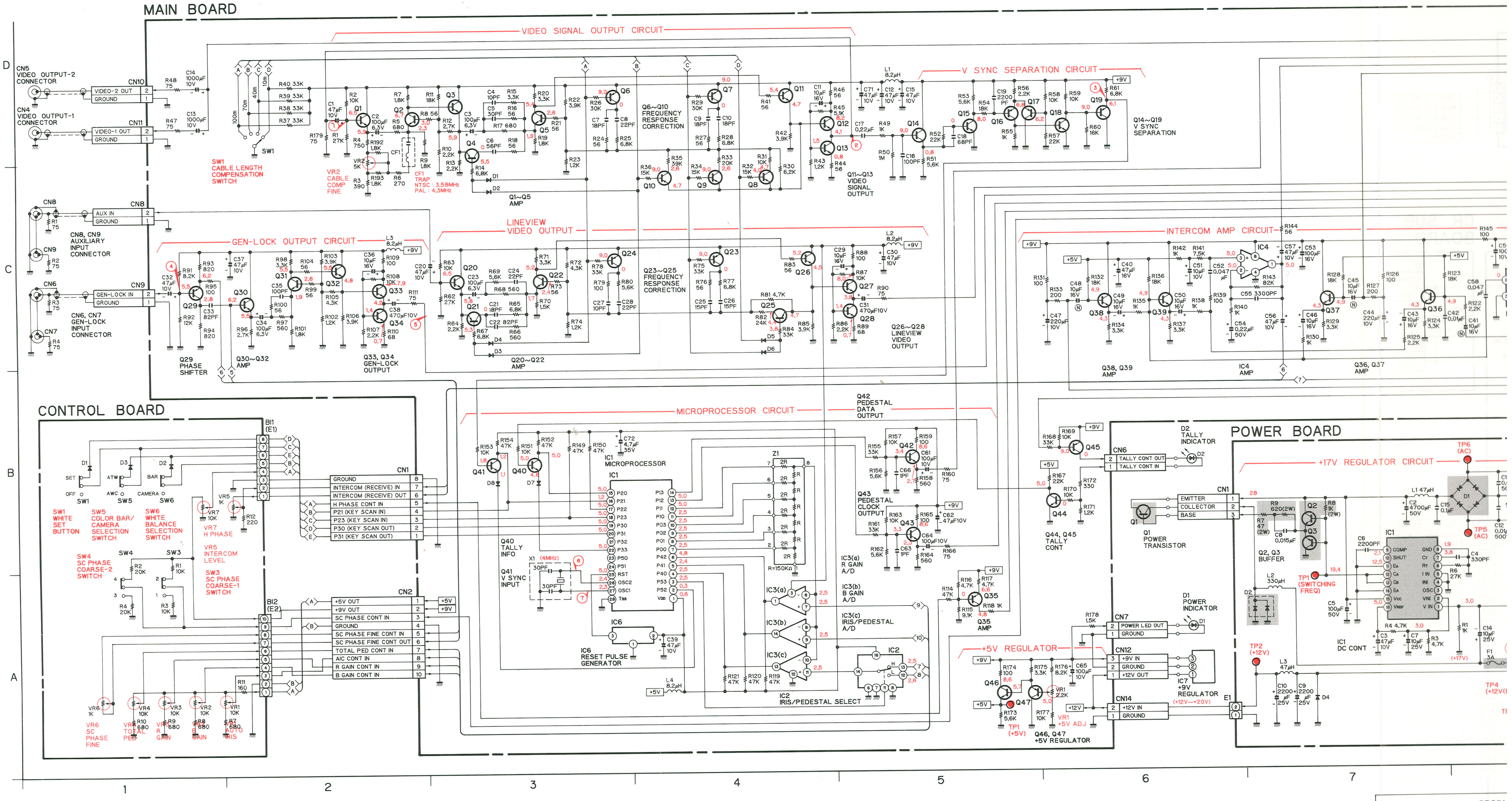
BLOCK DIAGRAM OF CAMERA REMOTE CONTROLLER WV-CR12


CR MAIN BOARD
SWITCH BOARD
SW1 CABLE LENGTH COMPENSATION SWITCH
10m (33ft)
40m (130ft)
70m (230ft)
100m (330ft)
E1
CN1
CABLE COMP 10m IN
CABLE COMP 40m IN
CABLE COMP 70m IN
CABLE COMP 100m IN
GROUND
CABLE COMPENSATION
Q4~Q6
AMP
Q15, 17, 18
VIDEO AMP
Q7~Q13
FREQUENCY RESPONSE CORRECTION
VIDEO OUTPUT
Q21
BUFFER
Q22
AMP
Q23~Q25
BUFFER
Q14
Q16
PLAYBACK CONT
Q33
Q19
Q20
Q66
PLAYBACK DETECT
Q26~Q28
AMP
Q29~Q32
FREQUENCY RESPONSE CORRECTION
Q34
Q35
BUFFER
AF AREA DETECT CIRCUIT
Q45
AMP
Q46
BUFFER
TP4 (AREA)
Q47, Q48
EVF CHARACTER DETECT
Q49, Q50
AF AREA DETECT
Q60
REC CONT
Q52
SERIAL DATA OUTPUT
Q51
SERIAL CLOCK OUTPUT
Q67 Q68
STANDBY CONT
IC5
AUDIO AMP
Q36
BUFFER
Q37~Q41
FREQUENCY RESPONSE CORRECTION
Q42, Q43
AMP
TP1 (ZEBRA/VP/TALLY)
VP SEPARATION
Q44, Q65
VP SEPARATION
IC1(b)
IC1(a)
IC1(b) PLAYBACK CONT
IC1(a) STANDBY CONT
CONTROL BOARD
SW1 WHITE SET BUTTON
SW2 ZONE SELECTION/ AUTO FOCUS BUTTON
SW3 REC REVIEW BUTTON
SW4 TILT (DOWN)/ FOCUS (FAR) BUTTON
SW5 TITLE/SEQ BUTTON
SW6 DATE TIME : SHIFT BUTTON
SW7 NEG/POS BUTTON
SW8 LAPSE TIME BUTTON
SW9 VTR START/ PAUSE BUTTON
SW10 FADE IN/OUT BUTTON
SW11 PAN (RIGHT)/ ZOOM (WIDE) BUTTON
SW12 TILT (UP)/ FOCUS (NEAR) BUTTON
SW13 PAN (LEFT)/ ZOOM (TELE) BUTTON
SW14 SET BUTTON
SW15 OPERATION SWITCH
SW16 LOCK SWITCH
SW17 PAN/TILT LENS SELECTION SWITCH
SW18 ZOOM SPEED SELECTION SWITCH
SW19 FOCUS SPEED SELECTION SWITCH
SW20 WHITE BALANCE SELECTION SWITCH
SW21 FOCUS SELECTION SWITCH
SW22 AUTO FOCUS ZONE ON/OFF SWITCH
SW23 LAPSE RECORDING SWITCH
SW15 ON STANDBY
+5V
+9V PLAY
REC
LAPSE ON
AWC
ATW
OFF
ON
MANU
AUTO
L
H
D24 POWER INDICATOR
VR3 AUTO IRIS
VR2 B GAIN
VR1 R GAIN
CR SUB BOARD
Q2
STAND-BY CONT
IC1
TIMING CONT
Q1
REC CONT
+9V
CN4
P50 (KEY SCAN OUT)
P20 (KEY SCAN IN)
P21 (KEY SCAN IN)
P52 (KEY SCAN OUT)
P22 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
P32 (KEY SCAN OUT)
P33 (KEY SCAN OUT)
P51 (KEY SCAN OUT)
E2
CN3
+9V OUT
AF AREA IN
AF AREA OUT
+5V OUT
IRIS CONT IN
B GAIN CONT IN
R GAIN CONT IN
GROUND
MICROPROCESSOR CIRCUIT
Q54
PLAYBACK CONT
Q53
VP INPUT
IC2
P20 P21 P22 P23 P30 P31 P32 P33 P50 SYNC/P51 RST OSC2 OSC1 VSS
P13 P12 P11 P10 P03 P02 P01 P00 P42 P41 P40 P53 P52 VDD
X1
MICROPROCESSOR
IC3(a)
R GAIN A/D
IC3(c)
B GAIN A/D
IC3(d)
IRIS A/D
IC1(c)
IC3(c) IRIS SELECT
IC4
RESET PULSE GENE.
+5V(a)
Q58 Q61
RUN SELECT
Q57
PLAYBACK CONT
D12
IC1
P90 P91 P92 P93 EXPS PA0 PA1 PA2 PA3 PB0 PB1 PB2/SB1B PB3/SB1B PC0/SB0B PC1/SB1A PC2/SB1A
P83 P82 P81 P80 P73 P72 P71 P70 P63 P62 P61 P60 P53 P52 P51 P50
P43 P42 P41 P40 P33 P32 P31 P30 P23 P22 P21 P20 P13 P12 P11 P10
PC3/SB0A RST SYNC X2 X1(IC1A) VSS OSC2 OSC1 VDD ICIB IRO0 IRO1 P00 P01 P02 P03
MICROPROCESSOR
Q62
BUFFER
TP5
X2
CT1 TIMER FREQ ADJ
X3
TP5 (TIMER FREQ)
Q64
TALLY CANCE

BLOCK DIAGRAM OF CAMERA REMOTE CONTROLLER WV-CR12


CR MAIN BOARD
CR SUB BOARD
CABLE COMPENSATION
VIDEO OUTPUT
Q4~Q6 AMP
Q15, 17, 18 VIDEO AMP
Q21 BUFFER
Q22 AMP
Q23~Q25 BUFFER
Q7~Q13 FREQUENCY RESPONSE CORRECTION
Q14 Q16 PLAYBACK CONT Q33
Q19 Q20 Q66 PLAYBACK DETECT
10m 40m 70m 100m
AF AREA DETECT CIRCUIT
Q26~Q28 AMP
Q29~Q32 FREQUENCY RESPONSE CORRECTION
Q34 Q35 BUFFER
Q45 AMP
Q46 BUFFER
TP4 (AREA)
Q47, Q48 EVF CHARACTER DETECT
Q49, Q50 AF AREA DETECT
Vp SEPARATION
Q36 BUFFER
Q37~Q41 FREQUENCY RESPONSE CORRECTION
Q42, Q43 AMP
Q44, Q65 Vp SEPARATION
TP1 (ZEBRA/Vp/TALLY)
IC1(b) PLAYBACK CONT
IC1(a) STANDBY CONT
Q60 REC CONT
Q52 SERIAL DATA OUTPUT
Q51 SERIAL CLOCK OUTPUT
Q67 Q68 STANDBY CONT
IC5 AUDIO AMP
F2 1A
F1 1A
E1
CN1
CABLE COMP 10m IN
CABLE COMP 40m IN
CABLE COMP 70m IN
CABLE COMP 100m IN
GROUND
Q2 STAND-BY CONT
IC1 TIMING CONT
Q1 REC CONT
+9V
CN2 MONITOR OUTPUT CONNECTOR
CN8
2 VIDEO OUT
1 GROUND
CN4 EVF CONNECTOR
CN7
7 EVF VIDEO OUT
6 GROUND
5 NOT USED
4 +12V OUT
3 GROUND
2 STANDBY OUT
1 AUDIO GROUND
CN1 10PIN CAMERA CONNECTOR
CN9
1 VIDEO IN
2 GROUND
3 SERIAL DATA OUT REC START/PAUSE IN
4 SERIAL CLOCK OUT
5 ZEBRA/TALLY/Vp IN
6 EVF CHARACTER IN
7 +12V OUT/IN
8 STANDBY/L CH IN
9 AUDIO GROUND
10 GROUND
CN3 AUDIO OUTPUT JACK
CN2
2 AUDIO GROUND
1 AUDIO OUT
CN5 10PIN VTR CONNECTOR
CN5
10 VIDEO OUT (VTR)
9 GROUND
8 GROUND
7 STANDBY OUT
6 AUDIO GROUND
5 AUDIO OUT
4 +12V IN
3 REC START/PAUSE CONT OUT
2 SERIAL CLOCK IN
1 SERIAL DATA OUT
CN6
1 +12V OUT
2 GROUND
3 +9V IN
IC101 +9V REG.
MICROPROCESSOR CIRCUIT
Q54 PLAYBACK CONT
Q53 Vp INPUT
Q58 Q61 RUN SELECT
Q57 PLAYBACK CONT
D12
E1
CN4
P50 (KEY SCAN OUT)
P20 (KEY SCAN IN)
P21 (KEY SCAN IN)
P52 (KEY SCAN OUT)
P22 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
P32 (KEY SCAN OUT)
P33 (KEY SCAN OUT)
P51 (KEY SCAN OUT)
IC2 MICROPROCESSOR
X1
IC3(a) R GAIN A/D
IC3(c) B GAIN A/D
IC3(d) IRIS A/D
IC1(c)
IC3(c) IRIS SELECT
+5V
E2
CN3
+9V OUT
AF AREA IN
AF AREA OUT
+5V OUT
IRIS CONT IN
B GAIN CONT IN
R GAIN CONT IN
GROUND
IC4 RESET PULSE GENE.
+5V(a)
IC1 MICROPROCESSOR
Q62 BUFFER
TP5 (TIMER FREQ)
X2 X3
CT1 TIMER FREQ ADJ
Q64 TALLY CANCEL
Q63 BUFFER
+5V REGULATOR
TP2 (+5V)
Q55, Q56 +5V REG.
L3
VR1 +5V ADJ
TP3 (GND)
SW1 VTR COMPATIBILITY SWITCH

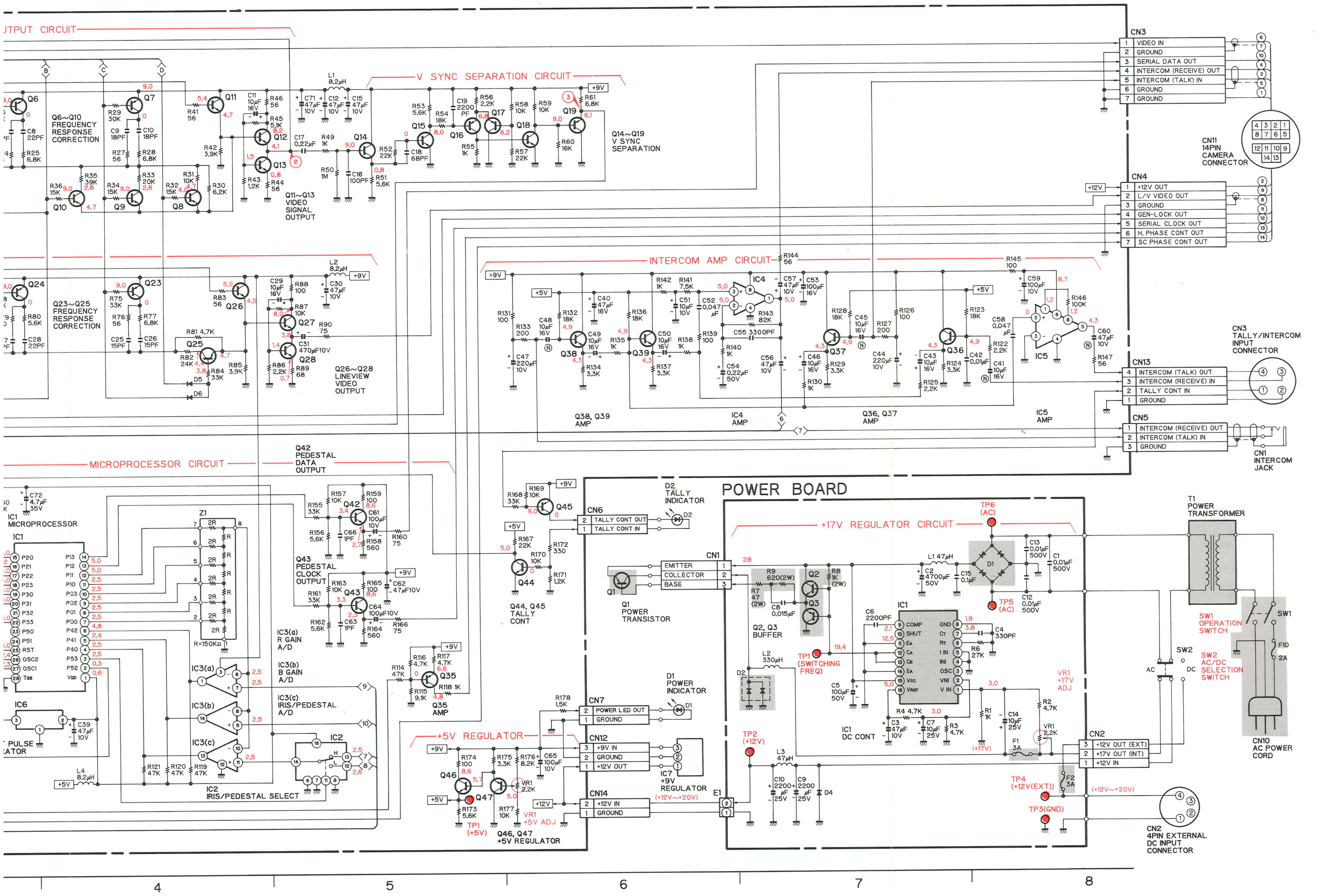
SCHEMATIC DIAGRAM OF REMOTE CONTROL UNIT WV-RC35


MAIN BOARD
VIDEO SIGNAL OUTPUT CIRCUIT
V SYNC SEPARATION CIRCUIT
CN5 VIDEO OUTPUT-2 CONNECTOR
CN4 VIDEO OUTPUT-1 CONNECTOR
CN10
VIDEO-2 OUT
GROUND
CN11
VIDEO-1 OUT
GROUND
SW1 CABLE LENGTH COMPENSATION SWITCH
VR2 CABLE COMP FINE
CF1 TRAP NTSC : 3.58MHz PAL : 4.43MHz
Q1~Q5 AMP
Q6~Q10 FREQUENCY RESPONSE CORRECTION
Q11~Q13 VIDEO SIGNAL OUTPUT
Q14~Q19 V SYNC SEPARATION
CN8
AUX IN
GROUND
CN8, CN9 AUXILIARY INPUT CONNECTOR
CN9
CN6
GEN-LOCK IN
GROUND
CN6, CN7 GEN-LOCK INPUT CONNECTOR
CN7
GEN-LOCK OUTPUT CIRCUIT
Q29 PHASE SHIFTER
Q30~Q32 AMP
Q33, Q34 GEN-LOCK OUTPUT
LINEVIEW VIDEO OUTPUT
Q20~Q22 AMP
Q23~Q25 FREQUENCY RESPONSE CORRECTION
Q26~Q28 LINEVIEW VIDEO OUTPUT
INTERCOM AMP CIRCUIT
Q38, Q39 AMP
IC4 AMP
Q36, Q37 AMP
CONTROL BOARD
BI1 (E1)
CN1
GROUND
INTERCOM (RECEIVE) IN
INTERCOM (RECEIVE) OUT
H PHASE CONT IN
P21 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
SW1 WHITE SET BUTTON
SW5 COLOR BAR/ CAMERA SELECTION SWITCH
SW6 WHITE BALANCE SELECTION SWITCH
VR7 H PHASE
VR5 INTERCOM LEVEL
SW4 SC PHASE COARSE-2 SWITCH
SW3 SC PHASE COARSE-1 SWITCH
BI2 (E2)
CN2
+5V OUT
+9V OUT
SC PHASE CONT IN
GROUND
SC PHASE FINE CONT IN
SC PHASE FINE CONT OUT
TOTAL PED CONT IN
AIC CONT IN
R GAIN CONT IN
B GAIN CONT IN
VR6 SC PHASE FINE
VR4 TOTAL PED
VR3 R GAIN
VR2 B GAIN
VR1 AUTO IRIS
MICROPROCESSOR CIRCUIT
Q41 V SYNC INPUT
Q40 TALLY INFO
IC1 MICROPROCESSOR
IC6 RESET PULSE GENERATOR
Q42 PEDESTAL DATA OUTPUT
Q43 PEDESTAL CLOCK OUTPUT
IC3(a) R GAIN A/D
IC3(b) B GAIN A/D
IC3(c) IRIS/PEDESTAL A/D
IC2 IRIS/PEDESTAL SELECT
Q35 AMP
Q44, Q45 TALLY CONT
+5V REGULATOR
Q46, Q47 +5V REGULATOR
TP1 (+5V)
VR1 +5V ADJ
POWER BOARD
D2 TALLY INDICATOR
CN6
TALLY CONT OUT
TALLY CONT IN
CN1
EMITTER
COLLECTOR
BASE
Q1 POWER TRANSISTOR
D1 POWER INDICATOR
CN7
POWER LED OUT
GROUND
CN12
+9V IN
GROUND
+12V OUT
IC7 +9V REGULATOR (+12V~+20V)
CN14
+12V IN
GROUND
+17V REGULATOR CIRCUIT
Q2, Q3 BUFFER
TP1 (SWITCHING FREQ)
IC1 DC CONT
TP2 (+12V)
TP4 (+12V)
TP5 (AC)
TP6 (AC)
F1 3A
D
C
B
A
1
2
3
4
5
6
7

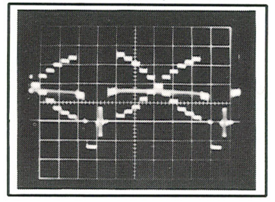
PRODU

The shaded area on this schematic
for protection from X-Radiation,
it is essential that only manufac
components in the shaded areas of

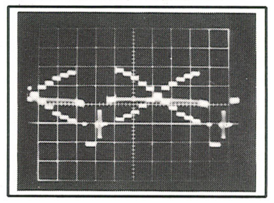
SCHEMATIC DIAGRAM OF REMOTE CONTROL UNIT WV-RC35


UTPUT CIRCUIT
V SYNC SEPARATION CIRCUIT
Q6~Q10 FREQUENCY RESPONSE CORRECTION
Q11~Q13 VIDEO SIGNAL OUTPUT
Q14~Q19 V SYNC SEPARATION
Q23~Q25 FREQUENCY RESPONSE CORRECTION
Q26~Q28 LINEVIEW VIDEO OUTPUT
INTERCOM AMP CIRCUIT
Q38, Q39 AMP
IC4 AMP
Q36, Q37 AMP
IC5 AMP
MICROPROCESSOR CIRCUIT
Q42 PEDESTAL DATA OUTPUT
Q43 PEDESTAL CLOCK OUTPUT
IC1 MICROPROCESSOR
IC3(a) R GAIN A/D
IC3(b) B GAIN A/D
IC3(c) IRIS/PEDESTAL A/D
IC2 IRIS/PEDESTAL SELECT
Q35 AMP
Q44, Q45 TALLY CONT
+5V REGULATOR
Q46, Q47 +5V REGULATOR
IC7 +9V REGULATOR
D1 POWER INDICATOR
D2 TALLY INDICATOR
Q1 POWER TRANSISTOR
POWER BOARD
+17V REGULATOR CIRCUIT
Q2, Q3 BUFFER
IC1 DC CONT
TP1 (SWITCHING FREQ)
TP2 (+12V)
TP3(GND)
TP4 (+12V(EXT))
TP5 (AC)
TP6 (AC)
VR1 +17V ADJ
VR1 +5V ADJ
T1 POWER TRANSFORMER
SW1 OPERATION SWITCH
SW2 AC/DC SELECTION SWITCH
CN10 AC POWER CORD
CN2 4PIN EXTERNAL DC INPUT CONNECTOR
CN3 1 VIDEO IN 2 GROUND 3 SERIAL DATA OUT 4 INTERCOM (RECEIVE) OUT 5 INTERCOM (TALK) IN 6 GROUND 7 GROUND
CN11 14PIN CAMERA CONNECTOR
CN4 1 +12V OUT 2 L/V VIDEO OUT 3 GROUND 4 GEN-LOCK OUT 5 SERIAL CLOCK OUT 6 H. PHASE CONT OUT 7 SC PHASE CONT OUT
CN3 TALLY/INTERCOM INPUT CONNECTOR
CN13 4 INTERCOM (TALK) OUT 3 INTERCOM (RECEIVE) IN 2 TALLY CONT IN 1 GROUND
CN5 1 INTERCOM (RECEIVE) OUT 2 INTERCOM (TALK) IN 3 GROUND
CN1 INTERCOM JACK
CN6 2 TALLY CONT OUT 1 TALLY CONT IN
CN7 2 POWER LED OUT 1 GROUND
CN12 3 +9V IN 2 GROUND 1 +12V OUT
CN14 2 +12V IN 1 GROUND
CN1 EMITTER COLLECTOR BASE
CN2 3 +12V OUT (EXT) 2 +17V OUT (INT) 1 +12V IN
4 5 6 7 8

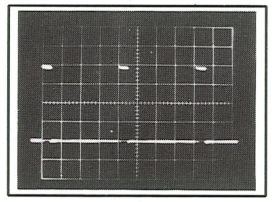
1. 0.2V/DIV, 10µs/DIV



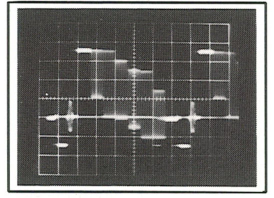
2. 0.5V/DIV, 10µs/DIV



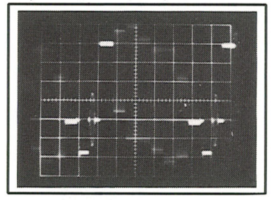
3. 0.5V/DIV, 5ms/DIV



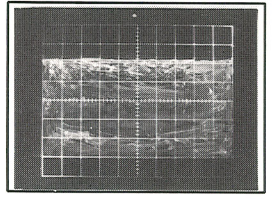
4. 0.2µs/DIV, 10µs/DIV



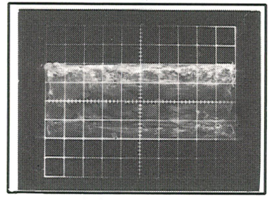
5. 0.2V/DIV, 10µs/DIV



6. 1V/DIV, 10µs/DIV



7. 1V/DIV, 10µs/DIV



WV-RC35
MAIN BOARD

IC1	MN1551CVT3S		B4
IC2	MN4053BS		A5
IC3	M5234FP		A4
IC4	NJM3414M		C7
IC5	NJM386M		C8
IC6	MN1280T		A4
IC7	AN6541		A6
Q1	2SD601-QR	(Y)	D2
Q2	2SC2404-CD	(U)	D3
Q3	2SC2404-CD	(U)	D3
Q4	2SA1022-C	(E)	D3
Q5	2SC2404-CD	(U)	D3
Q6	2SA1022-C	(E)	D3
Q7	2SA1022-C	(E)	D4
Q8	2SA1022-C	(E)	C10
Q9	2SA1022-C	(E)	C10
Q10	2SA1022-C	(E)	C10
Q11	2SC2404-CD	(U)	D4
Q12	2SD601-QR	(Y)	D5
Q13	2SD601-QR	(Y)	D5
Q14	2SA1022-C	(E)	D5
Q15	2SC2404-CD	(U)	D5
Q16	2SB709-Q	(A)	D5
Q17	2SB709-Q	(A)	D6
Q18	2SD601-QR	(Y)	D6
Q19	2SB709-Q	(A)	D6
Q20	2SD601-QR	(Y)	C3
Q21	2SA1022-C	(E)	C3
Q22	2SC2404-CD	(U)	C3
Q23	2SA1022-C	(E)	C4
Q24	2SA1022-C	(E)	C3
Q25	2SA1022-C	(E)	C4
Q26	2SC2404-CD	(U)	C4
Q27	2SD601-QR	(Y)	C5
Q28	2SD601-QR	(Y)	C5
Q29	2SA1022-C	(E)	C1
Q30	2SC2404-CD	(U)	C2
Q31	2SC2404-CD	(U)	C2
Q32	2SC2404-CD	(U)	C2
Q33	2SD601-QR	(Y)	C2
Q34	2SD601-QR	(Y)	C2
Q35	2SB709-Q	(A)	A5
Q36	2SD601-QR	(Y)	C7
Q37	2SD601-QR	(Y)	C7
Q38	2SD601-QR	(Y)	C6
Q39	2SD601-QR	(Y)	C6
Q40	2SD601-QR	(Y)	B3
Q41	2SD601-QR	(Y)	B3
Q42	2SD601-QR	(Y)	B5
Q43	2SD601-QR	(Y)	B5
Q44	2SD601-QR	(Y)	B6
Q45	2SB709-Q	(A)	B6
Q46	2SD601-QR	(Y)	A5
Q47	2SB709-Q	(A)	A5
D1	MA151K	(MH)	C3
D2	MA151K	(MH)	C3
D3	MA151K	(MH)	C3
D4	MA151K	(MH)	C3
D5	MA151K	(MH)	C4
D6	MA151K	(MH)	C4
D7	MA151K	(MH)	B3
D8	MA151K	(MH)	B3
Q1	2SB946-PQ		B6
D1	LN21RPH		A6
D2	YFLN31GCP		B6

POWER BOARD

IC1	NJM3524D	A7
Q2	2SC1384-QRS	B7
Q3	2SA684-QR	B7
D1	D5FB2052	B7
D2	ESAB82-004	A7
D4	RM4ZLFK1	A7

CONTROL BOARD

D1	MA165	B1
D2	MA165	B1
D3	MA165	B1

PRODUCT SAFETY NOTE

The shaded area on this schematic diagram incorporates special features important for protection from X-Radiation, fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

CONDUCTOR V

WV-RC35
MAIN BOARD

IC1	MN1551CVT3S		D2
IC2	MN4053BS		D2
IC3	M5234FP		D3
IC4	NJM3414M		C2
IC5	NJM386M		C2
IC6	MN1280T		
IC7	AN6541		D5
Q1	2SD601-QR	(Y)	B3
Q2	2SC2404-CD	(U)	C4
Q3	2SC2404-CD	(U)	C4
Q4	2SA1022-C	(E)	C3
Q5	2SC2404-CD	(U)	C4
Q6	2SA1022-C	(E)	C4
Q7	2SA1022-C	(E)	C4
Q8	2SA1022-C	(E)	D4
Q9	2SA1022-C	(E)	D3
Q10	2SA1022-C	(E)	D3
Q11	2SC2404-CD	(U)	C3
Q12	2SD601-QR	(Y)	C3
Q13	2SD601-QR	(Y)	D3
Q14	2SA1022-C	(E)	D2
Q15	2SC2404-CD	(U)	D2
Q16	2SB709-Q	(A)	D2
Q17	2SB709-Q	(A)	D2
Q18	2SD601-QR	(Y)	D2
Q19	2SB709-Q	(A)	D2
Q20	2SD601-QR	(Y)	B3
Q21	2SA1022-C	(E)	B3
Q22	2SC2404-CD	(U)	B3
Q23	2SA1022-C	(E)	B3
Q24	2SA1022-C	(E)	B3
Q25	2SA1022-C	(E)	C3
Q26	2SC2404-CD	(U)	C3
Q27	2SD601-QR	(Y)	C3
Q28	2SD601-QR	(Y)	C2
Q29	2SA1022-C	(E)	C3
Q30	2SC2404-CD	(U)	C3
Q31	2SC2404-CD	(U)	C3
Q32	2SC2404-CD	(U)	C3
Q33	2SD601-QR	(Y)	C2, C3
Q34	2SD601-QR	(Y)	C2
Q35	2SB709-Q	(A)	E2
Q36	2SD601-QR	(Y)	B2
Q37	2SD601-QR	(Y)	B2
Q38	2SD601-QR	(Y)	B2
Q39	2SD601-QR	(Y)	B2
Q40	2SD601-QR	(Y)	D2
Q41	2SD601-QR	(Y)	D2
Q42	2SD601-QR	(Y)	D2
Q43	2SD601-QR	(Y)	D2
Q44	2SD601-QR	(Y)	C2
Q45	2SB709-Q	(A)	C2
Q46	2SD601-QR	(Y)	C2
Q47	2SB709-Q	(A)	C2
D1	MA151K	(MH)	C3
D2	MA151K	(MH)	C3
D3	MA151K	(MH)	B3
D4	MA151K	(MH)	C3
D5	MA151K	(MH)	C3
D6	MA151K	(MH)	C3
D7	MA151K	(MH)	D2
D8	MA151K	(MH)	D2
Q1	2SB946-PQ		C6
D1	LN21RPH		C1
D2	YFLN31GCP		C1

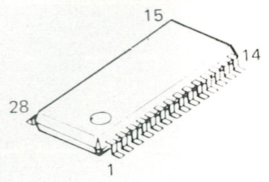
POWER BOARD

IC1	NJM3524D	B6
Q2	2SC1384-QRS	B5
Q3	2SA684-QR	B5
D1	D5FB2052	B7
D2	ESAB82-004	C6
D4	RM4ZLFK1	A8

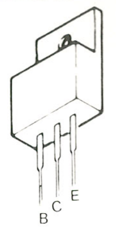
CONTROL BOARD

D1	MA165	D7
D2	MA165	D6
D3	MA165	D6

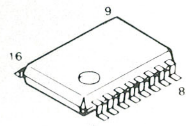
MN1551CVT



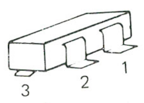
2SB946-PQ



MN4053BS

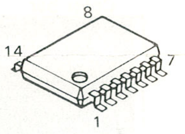


MA151K

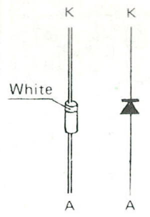


1 : NC
2 : Anode
3 : Cathode

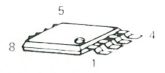
M5234FP



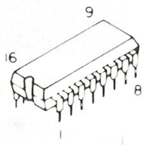
MA165



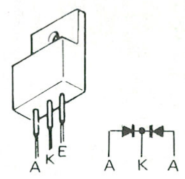
NJM386M
NJM3414M



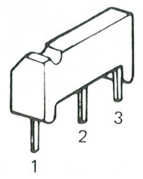
NJM3524D



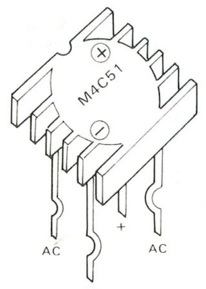
ESAB82-004



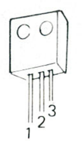
MN1280T



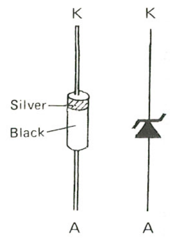
D5FB2052



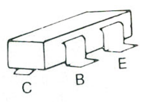
AN6541



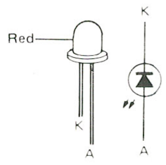
RM4ZLFK1


K
K
Silver
Black
A
A

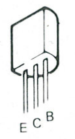
2SA1022-C
2SB709-Q
2SC2404-CD
2SD601-QR



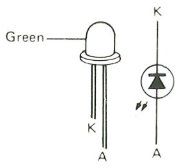
LN21RPH

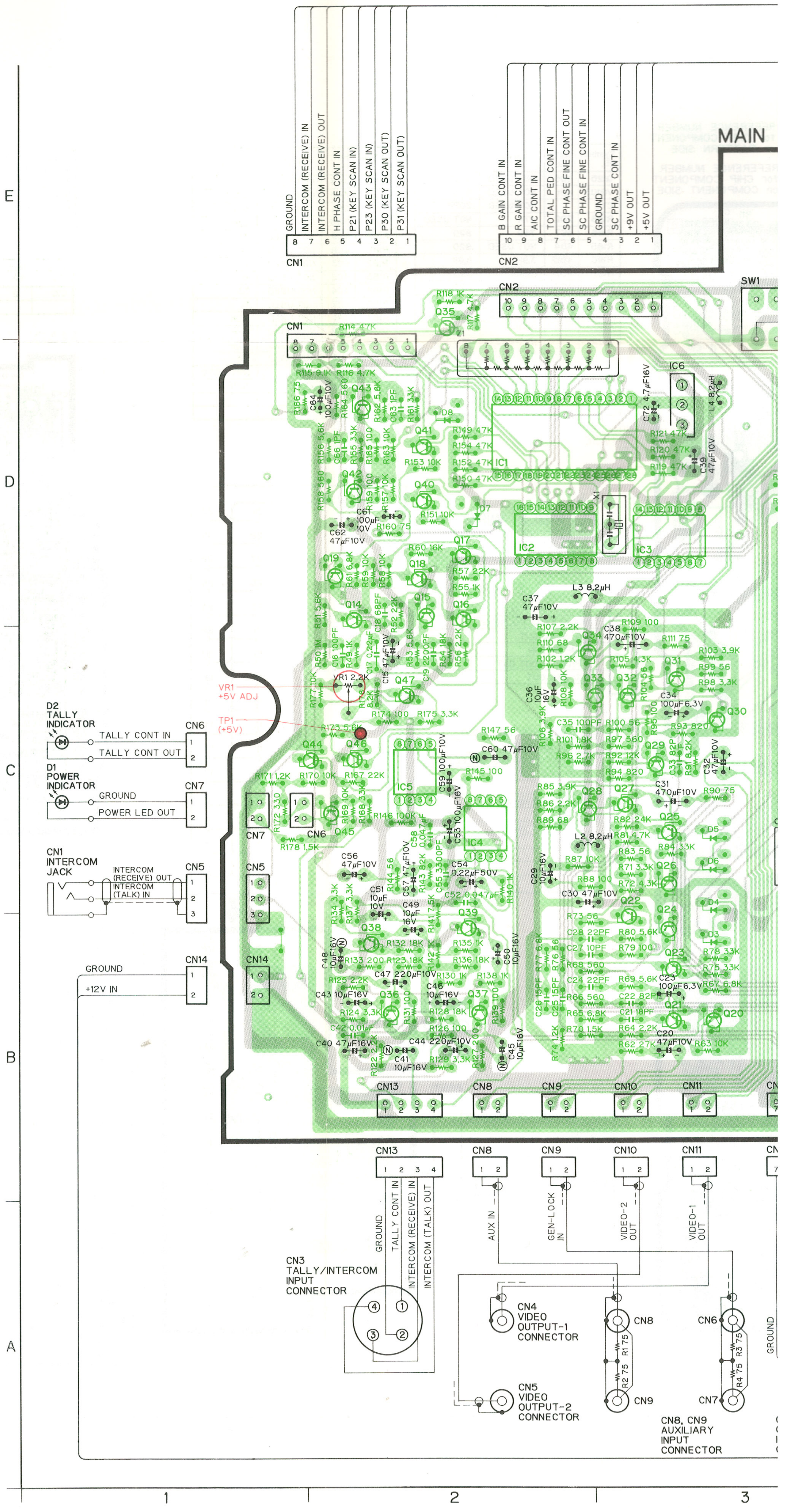


2SA684-QR
2SC1384-QRS

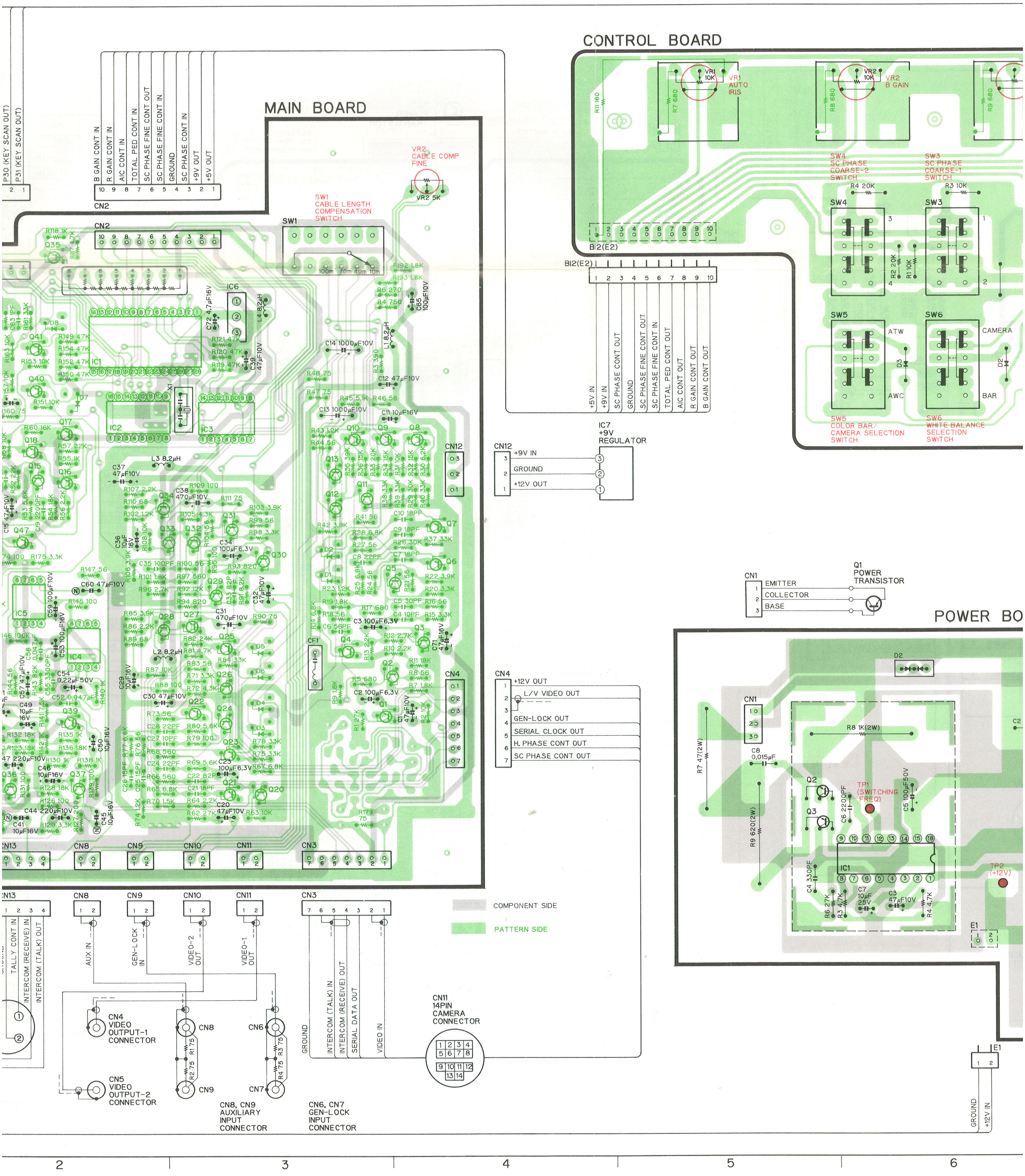


YFLN31GCP

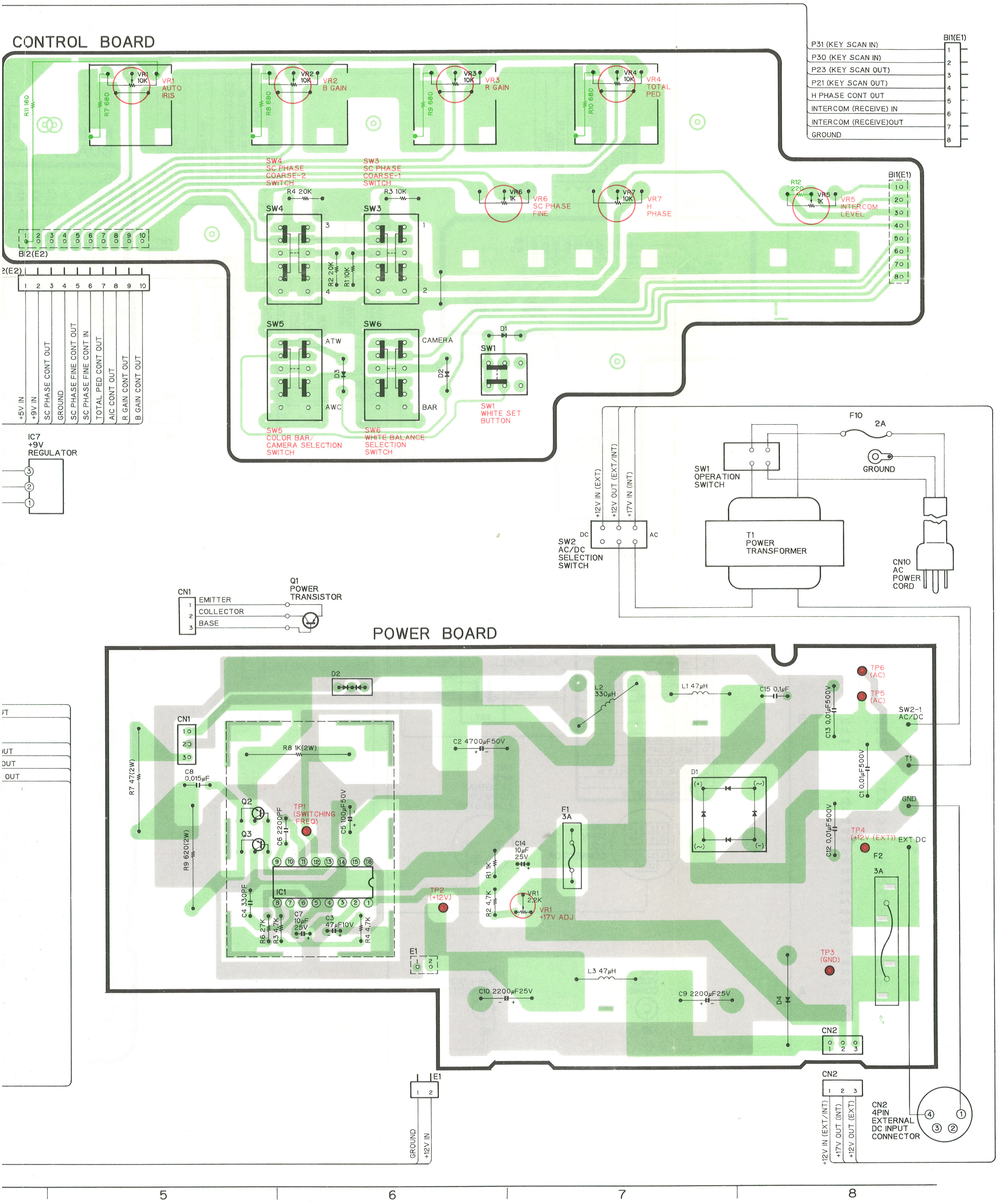



E
D
C
B
A
1
2
3
MAIN
GROUND
INTERCOM (RECEIVE) IN
INTERCOM (RECEIVE) OUT
H PHASE CONT IN
P21 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
CN1
B GAIN CONT IN
R GAIN CONT IN
AIC CONT IN
TOTAL PED CONT IN
SC PHASE FINE CONT OUT
SC PHASE FINE CONT IN
GROUND
SC PHASE CONT IN
+9V OUT
+5V OUT
CN2
SW1
IC1
IC2
IC3
IC4
IC5
IC6
X1
VR1
+5V ADJ
TP1
(+5V)
D2
TALLY
INDICATOR
TALLY CONT IN
TALLY CONT OUT
CN6
D1
POWER
INDICATOR
GROUND
POWER LED OUT
CN7
CN1
INTERCOM
JACK
INTERCOM
(RECEIVE) OUT
INTERCOM
(TALK) IN
CN5
GROUND
+12V IN
CN14
CN13
CN8
CN9
CN10
CN11
GROUND
TALLY CONT IN
INTERCOM (RECEIVE) IN
INTERCOM (TALK) OUT
AUX IN
GEN-LOCK
IN
VIDEO-2
OUT
VIDEO-1
OUT
CN3
TALLY/INTERCOM
INPUT
CONNECTOR
CN4
VIDEO
OUTPUT-1
CONNECTOR
CN5
VIDEO
OUTPUT-2
CONNECTOR
CN8
CN9
CN6
CN7
R1 75
R2 75
R3 75
R4 75
CN8, CN9
AUXILIARY
INPUT
CONNECTOR
GROUND

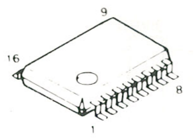
CONDUCTOR VIEW OF REMOTE CONTROL UNIT WV-RC35


MAIN BOARD
CONTROL BOARD
POWER BO
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
B GAIN CONT IN
R GAIN CONT IN
AIC CONT IN
TOTAL PED CONT IN
SC PHASE FINE CONT OUT
SC PHASE FINE CONT IN
GROUND
SC PHASE CONT IN
+9V OUT
+5V OUT
CN2
VR2 CABLE COMP FINE
SW1 CABLE LENGTH COMPENSATION SWITCH
VR1 AUTO IRIS
VR2 B GAIN
SW4 SC PHASE COARSE-2 SWITCH
SW3 SC PHASE COARSE-1 SWITCH
SW5 COLOR BAR/ CAMERA SELECTION SWITCH
SW6 WHITE BALANCE SELECTION SWITCH
ATW
AWC
CAMERA
BAR
B12(E2)
+5V IN
+9V IN
SC PHASE CONT OUT
GROUND
SC PHASE FINE CONT OUT
SC PHASE FINE CONT IN
TOTAL PED CONT OUT
AIC CONT OUT
R GAIN CONT OUT
B GAIN CONT OUT
IC7 +9V REGULATOR
CN12
+9V IN
GROUND
+12V OUT
CN1
EMITTER
COLLECTOR
BASE
Q1 POWER TRANSISTOR
CN4
+12V OUT
L/V VIDEO OUT
GEN-LOCK OUT
SERIAL CLOCK OUT
H. PHASE CONT OUT
SC PHASE CONT OUT
COMPONENT SIDE
PATTERN SIDE
TP1 (SWITCHING FREQ)
TP2 (+12V)
CN13
CN8
CN9
CN10
CN11
CN3
TALLY CONT IN
INTERCOM (RECEIVE) IN
INTERCOM (TALK) OUT
AUX IN
GEN-LOCK IN
VIDEO-2 OUT
VIDEO-1 OUT
GROUND
INTERCOM (TALK) IN
INTERCOM (RECEIVE) OUT
SERIAL DATA OUT
VIDEO IN
CN4 VIDEO OUTPUT-1 CONNECTOR
CN5 VIDEO OUTPUT-2 CONNECTOR
CN8, CN9 AUXILIARY INPUT CONNECTOR
CN6, CN7 GEN-LOCK INPUT CONNECTOR
CN11 14PIN CAMERA CONNECTOR
E1
GROUND
+12V IN
2
3
4
5
6

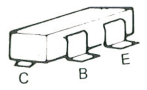
UNIT WV-RC35


CONTROL BOARD
VR1 10K
VR1 AUTO IRIS
VR2 10K
VR2 B GAIN
VR3 10K
VR3 R GAIN
VR4 10K
VR4 TOTAL PED
R11 160
R7 680
R8 680
R9 680
R10 680
SW4 SC PHASE COARSE-2 SWITCH
SW3 SC PHASE COARSE-1 SWITCH
R4 20K
R3 10K
SW4
SW3
VR6 1K
VR6 SC PHASE FINE
VR7 10K
VR7 H PHASE
R12 220
VR5 1K
VR5 INTERCOM LEVEL
R2 20K
R1 10K
SW5
SW6
ATW
AWC
CAMERA
BAR
D1
D2
D3
SW1
SW1 WHITE SET BUTTON
SW5 COLOR BAR/ CAMERA SELECTION SWITCH
SW6 WHITE BALANCE SELECTION SWITCH
B12(E2)
B11(E1)
P31 (KEY SCAN IN)
P30 (KEY SCAN IN)
P23 (KEY SCAN OUT)
P21 (KEY SCAN OUT)
H PHASE CONT OUT
INTERCOM (RECEIVE) IN
INTERCOM (RECEIVE)OUT
GROUND
+5V IN
+9V IN
SC PHASE CONT OUT
GROUND
SC PHASE FINE CONT OUT
SC PHASE FINE CONT IN
TOTAL PED CONT OUT
AIC CONT OUT
R GAIN CONT OUT
B GAIN CONT OUT
IC7 +9V REGULATOR
F10 2A
GROUND
SW1 OPERATION SWITCH
T1 POWER TRANSFORMER
CN10 AC POWER CORD
+12V IN (EXT)
+12V OUT (EXT/INT)
+17V IN (INT)
DC
AC
SW2 AC/DC SELECTION SWITCH
CN1
EMITTER
COLLECTOR
BASE
Q1 POWER TRANSISTOR
POWER BOARD
D2
L2 330μH
L1 47μH
C15 0.1μF
TP6 (AC)
TP5 (AC)
C13 0.01μF500V
SW2-1 AC/DC
T1
C1 0.01μF500V
GND
C12 0.01μF500V
TP4 (+12V (EXT))
EXT DC
F2 3A
CN1
R8 1K(2W)
R7 47(2W)
C8 0.015μF
C2 4700μF50V
D1
Q2
Q3
TP1 (SWITCHING FREQ)
C6 2200PF
C5 100μF50V
F1 3A
C14 10μF 25V
R1 1K
R2 4.7K
VR1 2.2K
VR1 +17V ADJ
TP2 (+12V)
R9 620(2W)
IC1
C4 330PF
R6 27K
R3 4.7K
C7 10μF 25V
C3 47μF10V
R4 4.7K
E1
L3 47μH
C10 2200μF25V
C9 2200μF25V
D4
TP3 (GND)
CN2
E1
GROUND
+12V IN
CN2
+12V IN (EXT/INT)
+17V OUT (INT)
+12V OUT (EXT)
CN2 4PIN EXTERNAL DC INPUT CONNECTOR
5
6
7
8

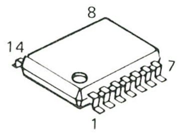
MN4053BS
MN4516BS
MN74HC221S



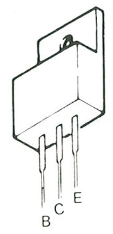
2SA1022-CD
2SB709-Q
2SC2404-CD
2SD601-QR



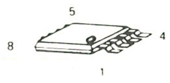
M5234FP
MN4011BS
YFNJM1496M



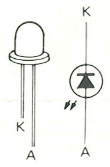
2SC1398-QR



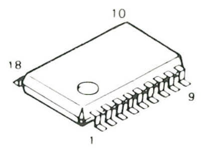
NJM3414M
NJM4560M



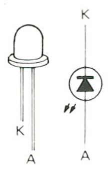
LN28RP



AN2020S



LN48YP



WV-AD37
MAIN BOARD

IC3	MN4053BS		C4
IC4	M5234FP		C4
IC5	NJM3414M		C5
IC101	MN4011BS		B4
IC102	MN4516BS		B4
IC103	NJM4560M		B3
IC105	MN4053BS		A4
IC106	AN2020S		A4
Q1	2SC2404-CD	(U)	D4
Q2	2SD601-QR	(Y)	D4
Q3	2SD601-QR	(Y)	D4
Q4	2SD601-QR	(Y)	D4
Q5	2SC2404-CD	(U)	D5
Q6	2SB709-Q	(A)	D4
Q7	2SC2404-CD	(U)	C5
Q8	2SC2404-CD	(U)	C4
Q9	2SC2404-CD	(U)	D4
Q18	2SB709-Q	(A)	D4
Q19	2SD601-QR	(Y)	D4
Q20	2SB709-Q	(A)	D4
Q21	2SC1398-QR		D4
Q101	2SB709-Q	(A)	B3
Q102	2SB709-Q	(A)	B4
Q103	2SB709-Q	(A)	B4
Q104	2SD601-QR		A3
Q105	2SC2404-CD	(U)	A3
Q106	2SC2404-CD	(U)	A3
Q107	2SC2404-CD	(U)	A3
Q108	2SC2404-CD	(U)	A4
Q109	2SC2404-CD	(U)	A4
Q110	2SD601-QR	(Y)	A4
Q111	2SD601-QR	(Y)	A4
Q112	2SD601-QR	(Y)	A4
Q113	2SD601-QR	(Y)	C4
Q114	2SD601-QR	(Y)	C4
Q115	2SD601-QR	(Y)	C3
Q116	2SC2404-CD	(U)	B4
Q117	2SC2404-CD	(U)	B4
Q118	2SC2404-CD	(U)	B4
Q119	2SC2404-CD	(U)	B4
Q120	2SB709-Q	(A)	B4
Q121	2SC2404-CD	(U)	B4
Q122	2SC2404-CD	(U)	B4
Q126	2SB709-Q	(A)	A4
Q127	2SD601-QR	(Y)	A4
Q128	2SD601-QR	(Y)	A4
Q129	2SB709-Q	(A)	B4
Q130	2SC2404-CD	)U)	A4
Q131	2SD601-QR	(Y)	C4
Q132	2SD601-QR	(Y)	B4
Q133	2SD601-QR	(Y)	B4
Q134	2SB709-Q	(A)	C4
Q135	2SD601-QR	(Y)	C4
(PAL only)			
Q123	2SC2404-CD	(U)	B5
Q124	2SC2404-CD	(U)	A5
Q125	2SD601-QR	(Y)	A5

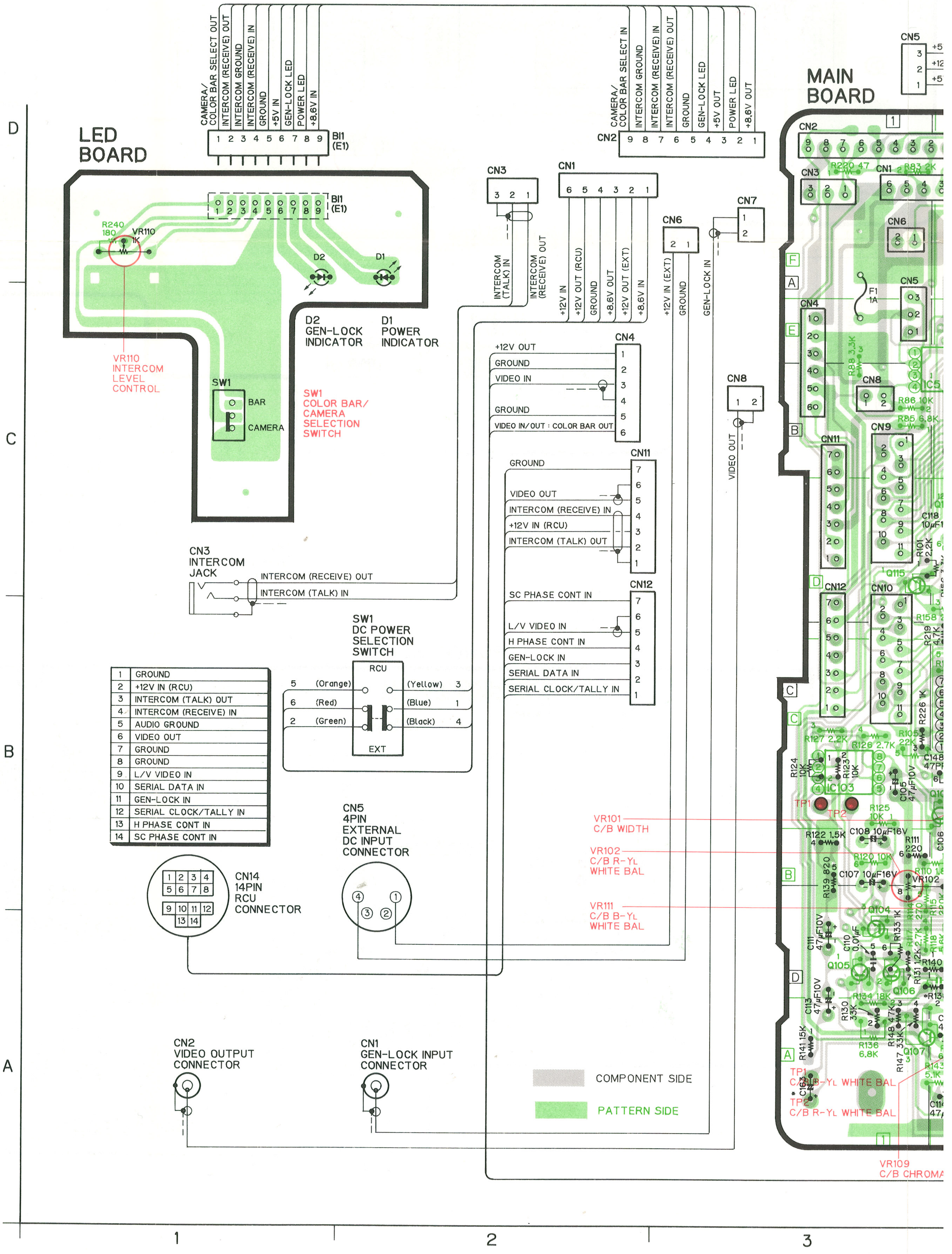
MAIN VIC BOARD

IC1	YFNJM1496M		C7
IC2	MN74HC221S		C7
Q10	2SC2404-CD	(U)	C7
Q11	2SC2404-CD	(U)	C7
Q12	2SA1022-CD	(E)	C7
Q13	2SD601-QR	(Y)	C7
Q14	2SC2404-CD	(U)	C7
Q15	2SC2404-CD	(U)	C7
Q16	2SC2404-CD	(U)	C7
Q17	2SC2404-CD	(U)	C7
Q23	2SC2404-CD	(U)	C7

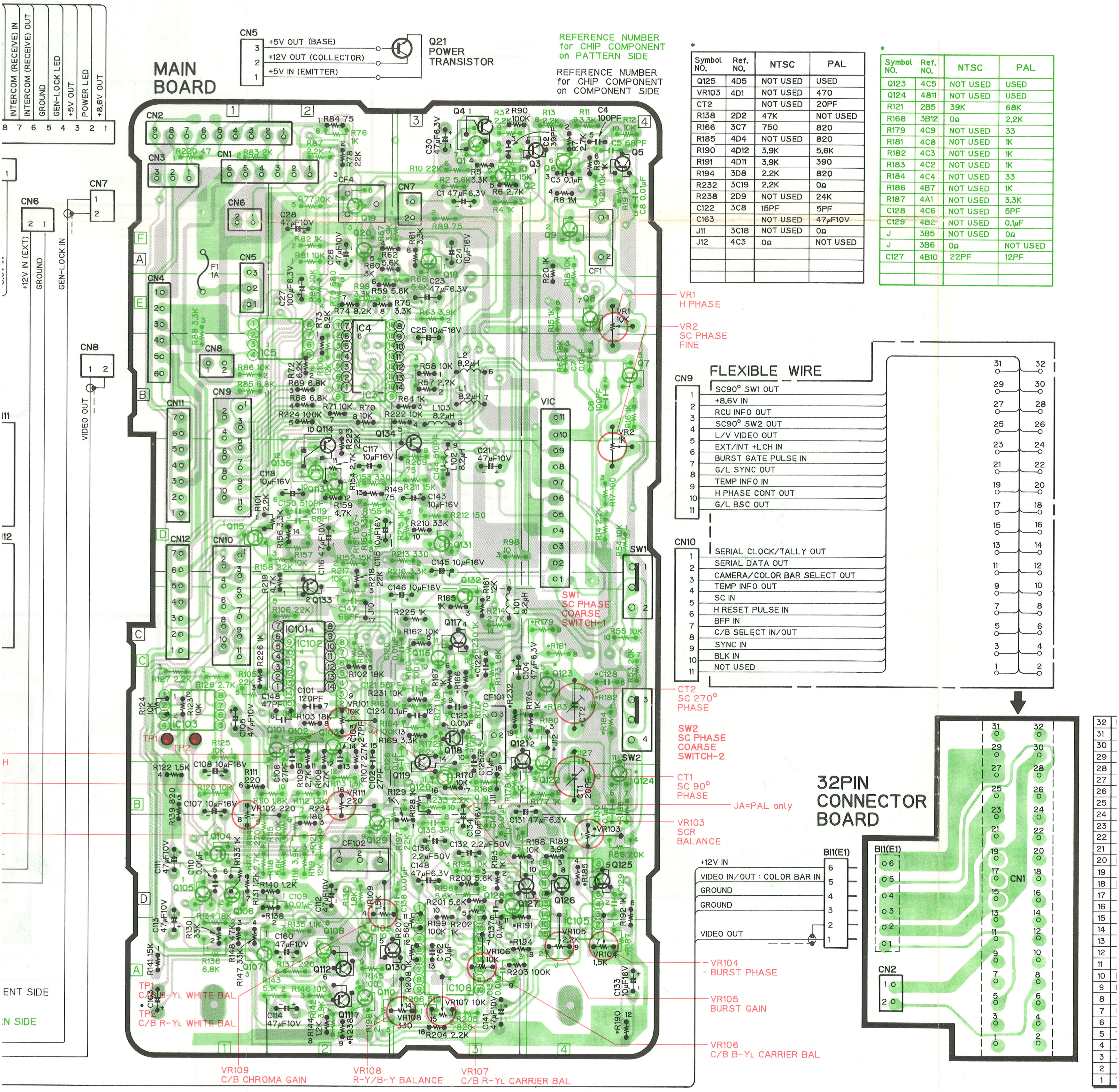
LED BOARD

D1	LN28RP	D2
D2	LN48YP	D2

CONDUCTO


LED BOARD
MAIN BOARD
CAMERA/ COLOR BAR SELECT OUT
INTERCOM (RECEIVE) OUT
INTERCOM GROUND
INTERCOM (RECEIVE) IN
GROUND
+5V IN
GEN-LOCK LED
POWER LED
+8.6V IN
BI1 (E1)
1 2 3 4 5 6 7 8 9
CAMERA/ COLOR BAR SELECT IN
INTERCOM GROUND
INTERCOM (RECEIVE) IN
INTERCOM (RECEIVE) OUT
GROUND
GEN-LOCK LED
+5V OUT
POWER LED
+8.6V OUT
CN2
9 8 7 6 5 4 3 2 1
R240 180
VR110 1K
D2
D1
D2 GEN-LOCK INDICATOR
D1 POWER INDICATOR
VR110 INTERCOM LEVEL CONTROL
SW1
BAR
CAMERA
SW1 COLOR BAR/ CAMERA SELECTION SWITCH
CN3
3 2 1
INTERCOM (TALK) IN
INTERCOM (RECEIVE) OUT
CN1
6 5 4 3 2 1
+12V IN
+12V OUT (RCU)
GROUND
+8.6V OUT
+12V OUT (EXT)
+8.6V IN
CN6
2 1
+12V IN (EXT)
GROUND
CN7
1 2
GEN-LOCK IN
CN4
+12V OUT
GROUND
VIDEO IN
GROUND
VIDEO IN/OUT : COLOR BAR OUT
CN8
1 2
VIDEO OUT
CN11
GROUND
VIDEO OUT
INTERCOM (RECEIVE) IN
+12V IN (RCU)
INTERCOM (TALK) OUT
CN12
SC PHASE CONT IN
L/V VIDEO IN
H PHASE CONT IN
GEN-LOCK IN
SERIAL DATA IN
SERIAL CLOCK/TALLY IN
CN3 INTERCOM JACK
INTERCOM (RECEIVE) OUT
INTERCOM (TALK) IN
SW1 DC POWER SELECTION SWITCH
RCU
EXT
5 (Orange)
6 (Red)
2 (Green)
(Yellow) 3
(Blue) 1
(Black) 4
1 GROUND
2 +12V IN (RCU)
3 INTERCOM (TALK) OUT
4 INTERCOM (RECEIVE) IN
5 AUDIO GROUND
6 VIDEO OUT
7 GROUND
8 GROUND
9 L/V VIDEO IN
10 SERIAL DATA IN
11 GEN-LOCK IN
12 SERIAL CLOCK/TALLY IN
13 H PHASE CONT IN
14 SC PHASE CONT IN
CN14 14PIN RCU CONNECTOR
CN5 4PIN EXTERNAL DC INPUT CONNECTOR
CN2 VIDEO OUTPUT CONNECTOR
CN1 GEN-LOCK INPUT CONNECTOR
VR101 C/B WIDTH
VR102 C/B R-YL WHITE BAL
VR111 C/B B-YL WHITE BAL
VR109 C/B CHROMA
TP1 C/B B-YL WHITE BAL
TP2 C/B R-YL WHITE BAL
CN5
CN9
CN10
IC103
F1 1A
COMPONENT SIDE
PATTERN SIDE
A
B
C
D
1
2
3

CONDUCTOR VIEW OF RCU ADAPTOR WV-AD37


INTERCOM (RECEIVE) IN
INTERCOM (RECEIVE) OUT
GROUND
GEN-LOCK LED
+5V OUT
POWER LED
+8.6V OUT
8 7 6 5 4 3 2 1
MAIN BOARD
CN5
+5V OUT (BASE)
+12V OUT (COLLECTOR)
+5V IN (EMITTER)
Q21
POWER
TRANSISTOR
CN6
+12V IN (EXT)
GROUND
GEN-LOCK IN
CN7
CN8
VIDEO OUT
CN2
CN3
CN1
CN4
CN9
CN10
CN11
CN12
IC4
IC5
IC101
IC102
IC103
IC105
IC106
VIC
F1 1A
TP1
TP2
VR1
H PHASE
VR2
SC PHASE
FINE
SW1
SC PHASE
COARSE
SWITCH-1
CT2
SC 270°
PHASE
SW2
SC PHASE
COARSE
SWITCH-2
CT1
SC 90°
PHASE
JA=PAL only
VR103
SCR
BALANCE
VR104
BURST PHASE
VR105
BURST GAIN
VR106
C/B B-YL CARRIER BAL
VR107
C/B R-YL CARRIER BAL
VR108
R-Y/B-Y BALANCE
VR109
C/B CHROMA GAIN
C/B B-YL WHITE BAL
C/B R-YL WHITE BAL
FLEXIBLE WIRE
CN9
1 SC90° SW1 OUT
2 +8.6V IN
3 RCU INFO OUT
4 SC90° SW2 OUT
5 L/V VIDEO OUT
6 EXT/INT +LCH IN
7 BURST GATE PULSE IN
8 G/L SYNC OUT
9 TEMP INFO IN
10 H PHASE CONT OUT
11 G/L BSC OUT
CN10
1 SERIAL CLOCK/TALLY OUT
2 SERIAL DATA OUT
3 CAMERA/COLOR BAR SELECT OUT
4 TEMP INFO OUT
5 SC IN
6 H RESET PULSE IN
7 BFP IN
8 C/B SELECT IN/OUT
9 SYNC IN
10 BLK IN
11 NOT USED
32PIN
CONNECTOR
BOARD
B11(E1)
+12V IN
VIDEO IN/OUT : COLOR BAR IN
GROUND
GROUND
VIDEO OUT
CN1
CN2
ENT SIDE
N SIDE
3
4
5
6

REFERENCE NUMBER
for CHIP COMPONENT
on PATTERN SIDE

REFERENCE NUMBER
for CHIP COMPONENT
on COMPONENT SIDE

*

Symbol NO.	Ref. NO.	NTSC	PAL
Q125	4D5	NOT USED	USED
VR103	4D1	NOT USED	470
CT2		NOT USED	20PF
R138	2D2	47K	NOT USED
R166	3C7	750	820
R185	4D4	NOT USED	820
R190	4D12	3.9K	5.6K
R191	4D11	3.9K	390
R194	3D8	2.2K	820
R232	3C19	2.2K	0Ω
R238	2D9	NOT USED	24K
C122	3C8	15PF	5PF
C163		NOT USED	47μF10V
J11	3C18	NOT USED	0Ω
J12	4C3	0Ω	NOT USED

*

Symbol NO.	Ref. NO.	NTSC	PAL
Q123	4C5	NOT USED	USED
Q124	4811	NOT USED	USED
R121	2B5	39K	68K
R168	3B12	0Ω	2.2K
R179	4C9	NOT USED	33
R181	4C8	NOT USED	1K
R182	4C3	NOT USED	1K
R183	4C2	NOT USED	1K
R184	4C4	NOT USED	33
R186	4B7	NOT USED	1K
R187	4A1	NOT USED	3.3K
C128	4C6	NOT USED	5PF
C129	4B2	NOT USED	0.1μF
J	3B5	NOT USED	0Ω
J	3B6	0Ω	NOT USED
C127	4B10	22PF	12PF

REFERENCE NUMBER
or CHIP COMPONENT
n PATTERN SIDE

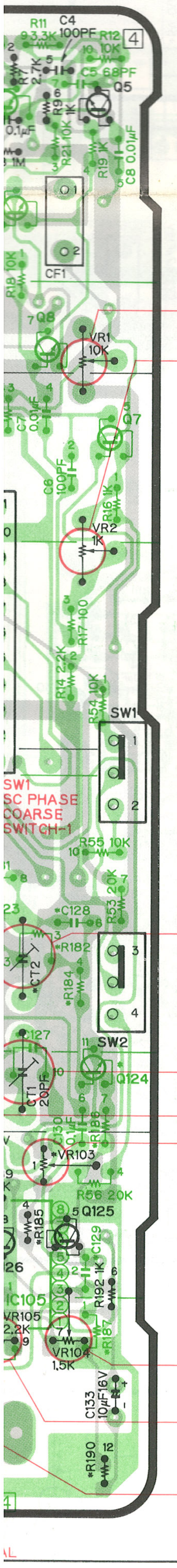
EFERENCE NUMBER
or CHIP COMPONENT
n COMPONENT SIDE

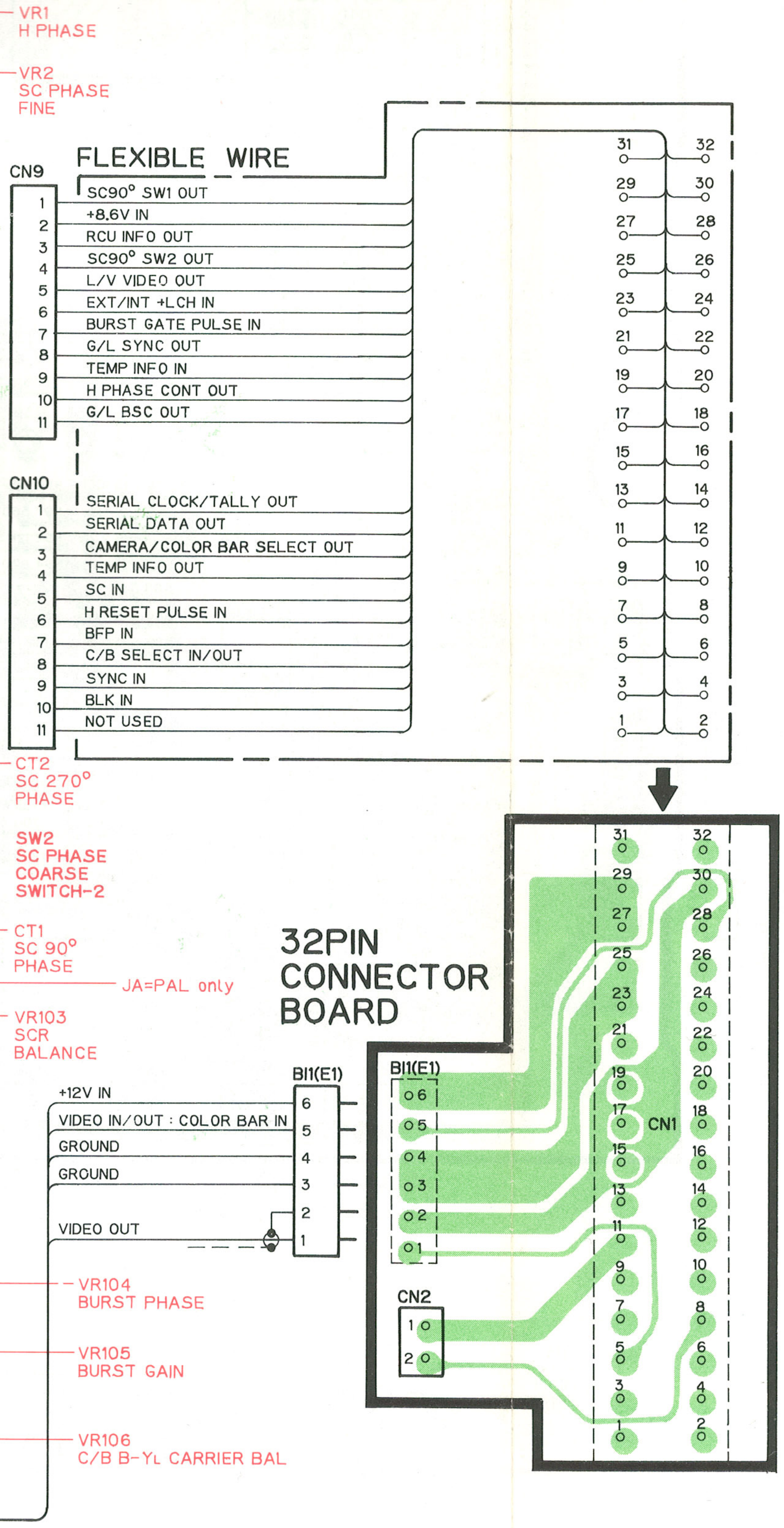
*

Symbol NO.	Ref. NO.	NTSC	PAL
Q125	4D5	NOT USED	USED
VR103	4D1	NOT USED	470
CT2		NOT USED	20PF
R138	2D2	47K	NOT USED
R166	3C7	750	820
R185	4D4	NOT USED	820
R190	4D12	3.9K	5.6K
R191	4D11	3.9K	390
R194	3D8	2.2K	820
R232	3C19	2.2K	0Ω
R238	2D9	NOT USED	24K
C122	3C8	15PF	5PF
C163		NOT USED	47µF10V
J11	3C18	NOT USED	0Ω
J12	4C3	0Ω	NOT USED

*

Symbol NO.	Ref. NO.	NTSC	PAL
Q123	4C5	NOT USED	USED
Q124	4B11	NOT USED	USED
R121	2B5	39K	68K
R168	3B12	0Ω	2.2K
R179	4C9	NOT USED	33
R181	4C8	NOT USED	1K
R182	4C3	NOT USED	1K
R183	4C2	NOT USED	1K
R184	4C4	NOT USED	33
R186	4B7	NOT USED	1K
R187	4A1	NOT USED	3.3K
C128	4C6	NOT USED	5PF
C129	4B2	NOT USED	0.1µF
J	3B5	NOT USED	0Ω
J	3B6	0Ω	NOT USED
C127	4B10	22PF	12PF


R11 3.3K
C4 100PF
R12 10K
R7 2.7K
C5 68PF
Q5
R9 1K
R21 10K
R19 1K
C8 0.01µF
0.1µF
1M
CF1
R18 10K
Q8
VR1 10K
C7 0.01µF
Q7
C6 100PF
R16 1K
VR2 1K
R17 100
R14 2.2K
R54 10K
SW1
R55 10K
C128
R53 20K
R182
R184
CT2
Q127
SW2
Q124
CT1 20PF
R186
VR103
R56 20K
Q125
R185
C129
R192 1K
IC105
VR105 2.2K
VR104 1.5K
R187
C133 10µF16V
R190


VR1
H PHASE
VR2
SC PHASE
FINE
SW1
SC PHASE
COARSE
SWITCH-1
CT2
SC 270°
PHASE
SW2
SC PHASE
COARSE
SWITCH-2
CT1
SC 90°
PHASE
JA=PAL only
VR103
SCR
BALANCE
VR104
BURST PHASE
VR105
BURST GAIN
VR106
C/B B-YL CARRIER BAL
FLEXIBLE WIRE
CN9
1 SC90° SW1 OUT
2 +8.6V IN
3 RCU INFO OUT
4 SC90° SW2 OUT
5 L/V VIDEO OUT
6 EXT/INT +LCH IN
7 BURST GATE PULSE IN
8 G/L SYNC OUT
9 TEMP INFO IN
10 H PHASE CONT OUT
11 G/L BSC OUT
CN10
1 SERIAL CLOCK/TALLY OUT
2 SERIAL DATA OUT
3 CAMERA/COLOR BAR SELECT OUT
4 TEMP INFO OUT
5 SC IN
6 H RESET PULSE IN
7 BFP IN
8 C/B SELECT IN/OUT
9 SYNC IN
10 BLK IN
11 NOT USED
32PIN
CONNECTOR
BOARD
BI1(E1)
+12V IN
VIDEO IN/OUT : COLOR BAR IN
GROUND
GROUND
VIDEO OUT
CN1
CN2

32	NOT USED
31	+8.6V IN
30	GROUND (VIDEO)
29	NOT USED
28	VIDEO IN/OUT : COLOR BAR OUT
27	+12V OUT
26	H PHASE CONT OUT
25	GROUND
24	TEMP INFO IN
23	GROUND
22	SYNC IN
21	L/V VIDEO OUT
20	BFP IN
19	BLK IN
18	H RESET PULSE IN
17	SERIAL DATA OUT
16	G/L SYNC OUT
15	G/L BSC OUT
14	SC IN
13	BURST GATE PULSE IN
12	C/B SELECT IN/OUT
11	AUDIO GROUND
10	RCU INFO OUT
9	NOT USED
8	EXT/INT +LCH IN
7	NOT USED
6	SC90° SW1 OUT
5	VIDEO IN
4	SC90° SW2 OUT
3	SERIAL CLOCK/TALLY OUT
2	CAMERA/COLOR BAR SELECT OUT
1	TEMP INFO OUT

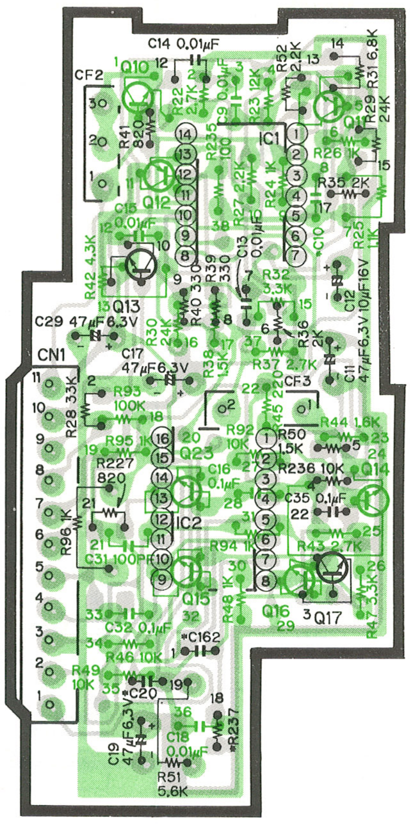
*

Symbol NO.	Ref. NO.	NTSC	PAL
R237	18	NOT USED	120K
C20	19	18PF	12PF
C162	1	NOT USED	120PF

*

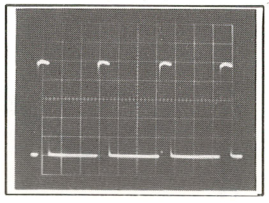
Symbol NO.	Ref. NO.	NTSC	PAL
C10	8	33PF	27PF

MAIN VIC BOARD

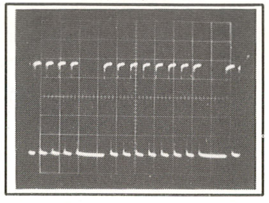

C14 0.01µF
CF2
Q10
R41 820
R22 2.7K
C9 0.01µF
R23 12K
R52 2.2K
R31 6.8K
R29 24K
Q11
IC1
R26 1K
R35 2K
R235 100
Q12
Q13
R42 4.3K
C29 47µF6.3V
C17 47µF6.3V
CN1
R28 33K
R93 100K
R95
R227 820
Q23
C16
R92 10K
R50 1.5K
R236 10K
R44 1.8K
C35 0.1µF
IC2
R96 1K
C31 100PF
R94 1K
R43 2.7K
R47 3.3K
Q15
Q16
Q17
C32 0.1µF
C162
R49 10K
R46 10K
C20
C19 47µF6.3V
C18 0.01µF
R237
R51 5.6K

5 6 7

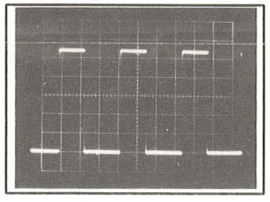
1. 1V/DIV, 20µs/DIV



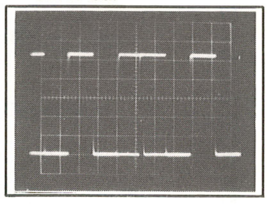
2. 1V/DIV, 10µs/DIV



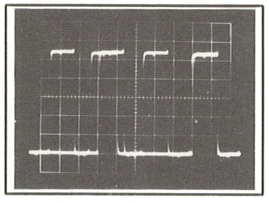
3. 1V/DIV, 20µs/DIV
Color bar



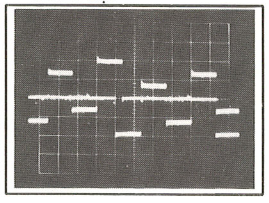
4. 0.1V/DIV, 10µs/DIV
Color bar



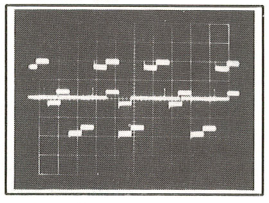
5. 0.1V/DIV, 5µs/DIV
Color bar



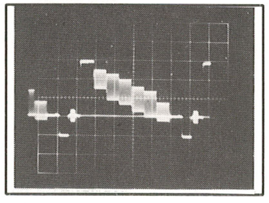
6. 50mV/DIV, 5µs/DIV
Color bar



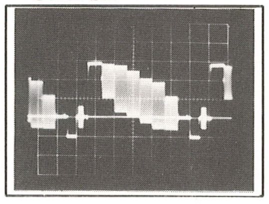
7. 50mV/DIV, 10µs/DIV
Color bar



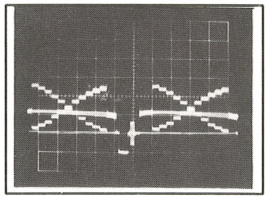
8. 0.5V/DIV, 10µs/DIV
Color bar



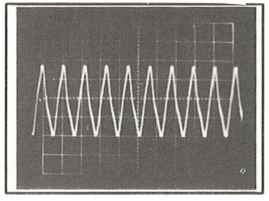
9. 0.5V/DIV, 10µs/DIV
Color bar



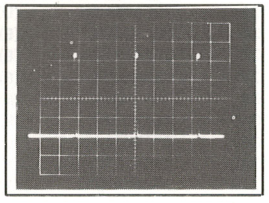
10. 0.5V/DIV, 10µs/DIV



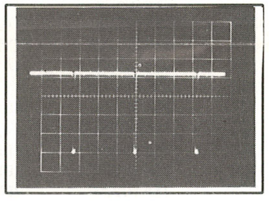
11. 0.2V/DIV, 0.2µs/DIV



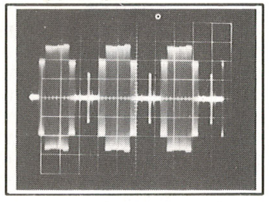
12. 1V/DIV, 20µs/DIV



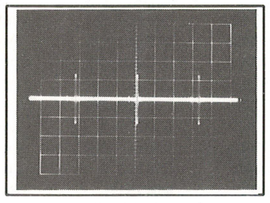
13. 0.1V/DIV, 20µs/DIV



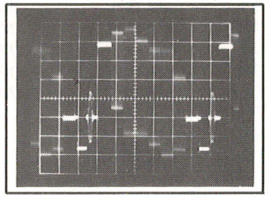
14. 0.1V/DIV, 20µs/DIV
Color bar



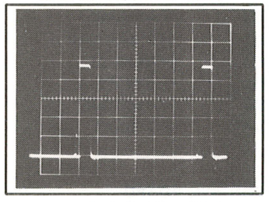
15. 0.1V/DIV, 20µs/DIV



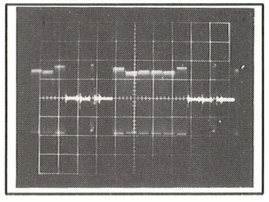
16. 0.2µs/DIV, 10µs/DIV
Gen-lock(Color bar)



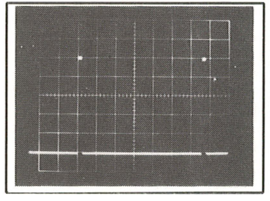
17. 1V/DIV, 10µs/DIV
Gen-lock(Color bar)



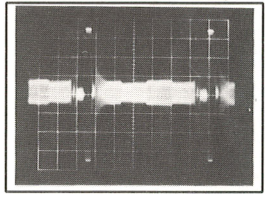
18. 0.1V/DIV, 10µs/DIV
Gen-lock(Color bar)



19. 1V/DIV, 10µs/DIV
Gen-lock(Color bar)



20. 0.5V/DIV, 10µs/DIV
Gen-lock(Color bar)



SCHEMATIC DIAGRAM OF RCU ADAPTOR WV-AD37

WV-AD37
MAIN BOARD

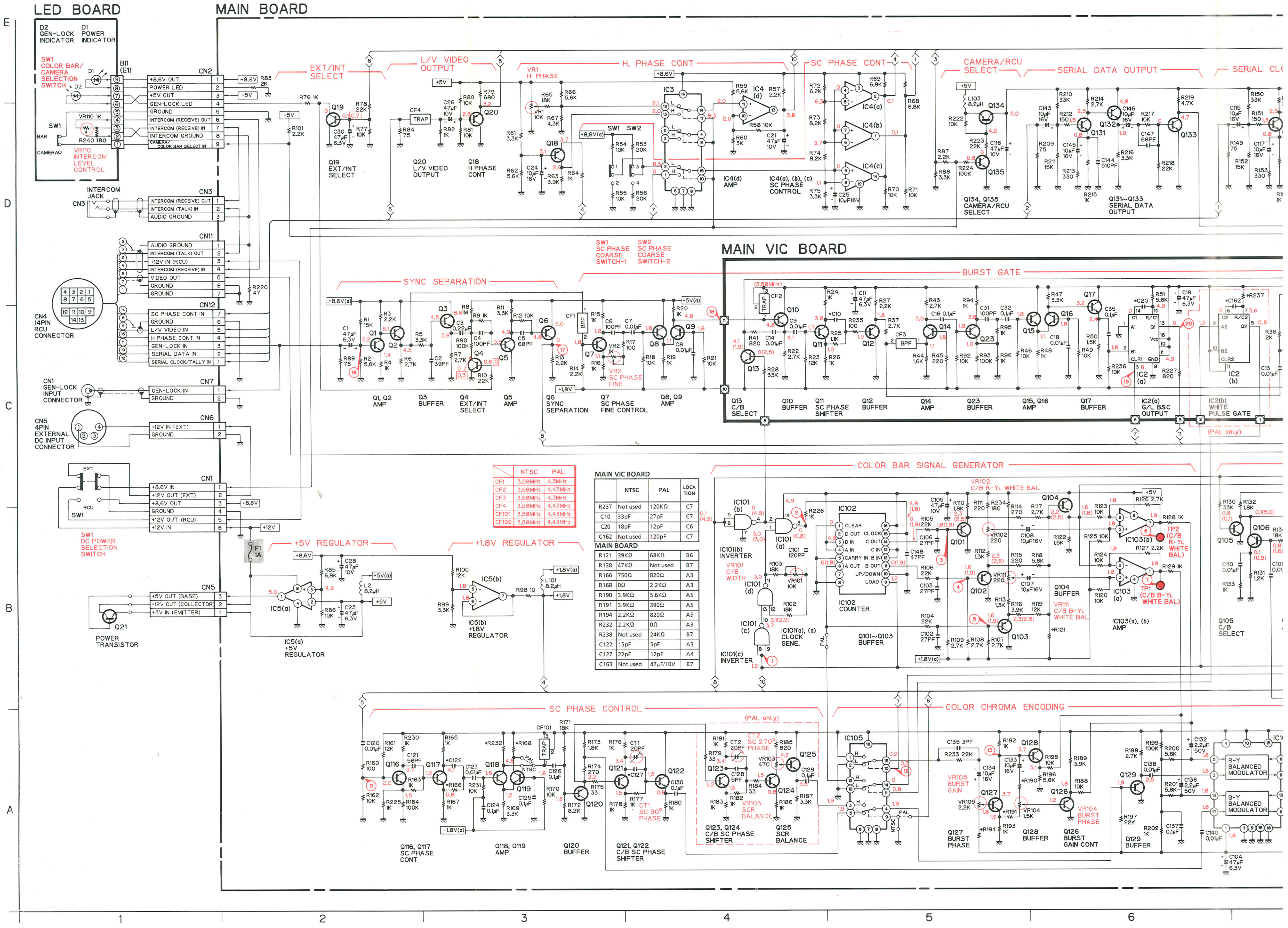
IC3	MN4053BS		D4
IC4	M5234FP		D4, D5
IC5	NJM3414M		B2, B3
IC101	MN4011BS		B4
IC102	MN4516BS		B5
IC103	NJM4560M		B6
IC105	MN4053BS		A5
IC106	AN2020S		A7
Q1	2SC2404-CD	(U)	C2
Q2	2SD601-QR	(Y)	C2
Q3	2SD601-QR	(Y)	C3
Q4	2SD601-QR	(Y)	C3
Q5	2SC2404-CD	(U)	C3
Q6	2SB709-Q	(A)	C3
Q7	2SC2404-CD	(U)	C3
Q8	2SC2404-CD	(U)	C4
Q9	2SC2404-CD	(U)	C4
Q18	2SB709-Q	(A)	D3
Q19	2SD601-QR	(Y)	D2
Q20	2SB709-Q	(A)	D3
Q21	2SC1398-QR		B 1
Q101	2SB709-Q	(A)	B5
Q102	2SB709-Q	(A)	B5
Q103	2SB709-Q	(A)	B5
Q104	2SD601-QR		B6
Q105	2SC2404-CD	(U)	B7
Q106	2SC2404-CD	(U)	B7
Q107	2SC2404-CD	(U)	B7
Q108	2SC2404-CD	(U)	B7
Q109	2SC2404-CD	(U)	B7
Q110	2SD601-QR	(Y)	B8
Q111	2SD601-QR	(Y)	B8
Q112	2SD601-QR	(Y)	B8
Q113	2SD601-QR	(Y)	D7
Q114	2SD601-QR	(Y)	D7
Q115	2SD601-QR	(Y)	D7
Q116	2SC2404-CD	(U)	A2
Q117	2SC2404-CD	(U)	A3
Q118	2SC2404-CD	(U)	A3
Q119	2SC2404-CD	(U)	A3
Q120	2SB709-Q	(A)	A3
Q121	2SC2404-CD	(U)	A3
Q122	2SC2404-CD	(U)	A4
Q126	2SB709-Q	(A)	A6
Q127	2SD601-QR	(Y)	A5
Q128	2SD601-QR	(Y)	A5
Q129	2SB709-Q	(A)	A6
Q130	2SC2404-CD	)U)	A7
Q131	2SD601-QR	(Y)	D6
Q132	2SD601-QR	(Y)	D6
Q133	2SD601-QR	(Y)	D6
Q134	2SB709-Q	(A)	D5
Q135	2SD601-QR	(Y)	D5
(PAL only)			
Q123	2SC2404-CD	(U)	A4
Q124	2SC2404-CD	(U)	A4
Q125	2SD601-QR	(Y)	A4

MAIN VIC BOARD

IC1	YFNJM1496M		C7
IC2	MN74HC221S		C6
Q10	2SC2404-CD	(U)	C4
Q11	2SC2404-CD	(U)	C5
Q12	2SA1022-CD	(E)	C5
Q13	2SD601-QR	(Y)	C4
Q14	2SC2404-CD	(U)	C5
Q15	2SC2404-CD	(U)	C6
Q16	2SC2404-CD	(U)	C6
Q17	2SC2404-CD	(U)	C6
Q23	2SC2404-CD	(U)	C5

LED BOARD

D1	LN28RP	E1
D2	LN48YP	E1



LED BOARD
MAIN BOARD
MAIN VIC BOARD
EXT/INT SELECT
L/V VIDEO OUTPUT
H. PHASE CONT
SC PHASE CONT
CAMERA/RCU SELECT
SERIAL DATA OUTPUT
SYNC SEPARATION
BURST GATE
+5V REGULATOR
+1,8V REGULATOR
COLOR BAR SIGNAL GENERATOR
SC PHASE CONTROL
COLOR CHROMA ENCODING
(PAL only)
CN4 14PIN RCU CONNECTOR
CN1 GEN-LOCK INPUT CONNECTOR
CN5 4PIN EXTERNAL DC INPUT CONNECTOR
INTERCOM JACK
Q21 POWER TRANSISTOR
SW1 DC POWER SELECTION SWITCH
SW1 COLOR BAR/ CAMERA SELECTION SWITCH
D2 GEN-LOCK INDICATOR
D1 POWER INDICATOR
VR110 INTERCOM LEVEL CONTROL
IC5(a) +5V REGULATOR
IC5(b) +1.8V REGULATOR
IC102 COUNTER
R-Y BALANCED MODULATOR
B-Y BALANCED MODULATOR
A
B
C
D
E
1
2
3
4
5
6

	NTSC	PAL
CF1	3.58MHz	4.3MHz
CF2	3.58MHz	4.43MHz
CF3	3.58MHz	4.3MHz
CF4	3.58MHz	4.43MHz
CF101	3.58MHz	4.43MHz
CF102	3.58MHz	4.43MHz

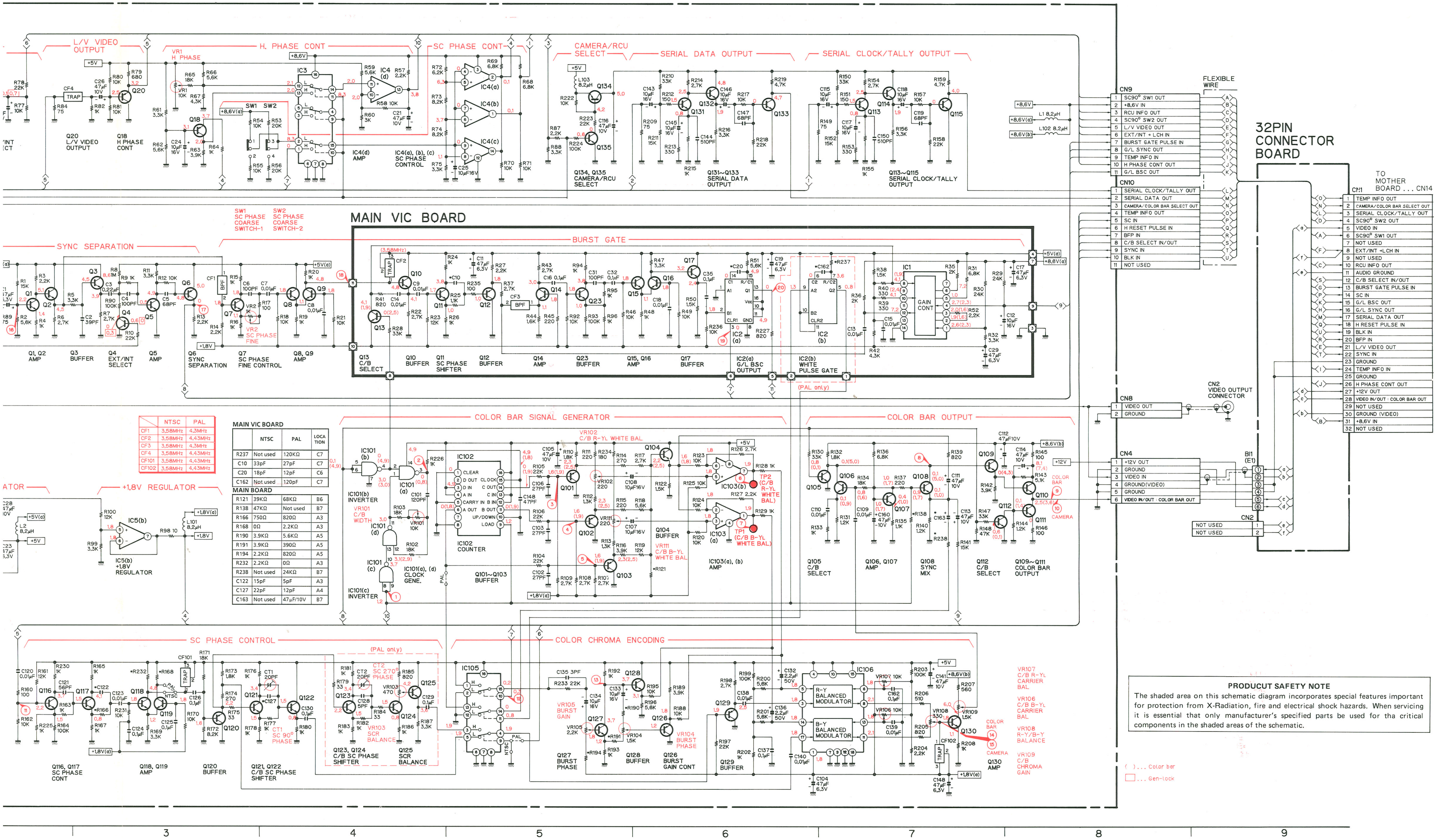
MAIN VIC BOARD

	NTSC	PAL	LOCATION
R237	Not used	120KΩ	C7
C10	33pF	27pF	C7
C20	18pF	12pF	C6
C162	Not used	120pF	C7

MAIN BOARD

	NTSC	PAL	LOCATION
R121	39KΩ	68KΩ	B6
R138	47KΩ	Not used	B7
R166	750Ω	820Ω	A3
R168	0Ω	2.2KΩ	A3
R190	3.9KΩ	5.6KΩ	A5
R191	3.9KΩ	390Ω	A5
R194	2.2KΩ	820Ω	A5
R232	2.2KΩ	0Ω	A3
R238	Not used	24KΩ	B7
C122	15pF	5pF	A3
C127	22pF	12pF	A4
C163	Not used	47µF/10V	B7

SCHEMATIC DIAGRAM OF RCU ADAPTOR WV-AD37


L/V VIDEO OUTPUT
H. PHASE CONT
SC PHASE CONT
CAMERA/RCU SELECT
SERIAL DATA OUTPUT
SERIAL CLOCK/TALLY OUTPUT
Q20 L/V VIDEO OUTPUT
Q18 H PHASE CONT
IC4(d) AMP
IC4(a), (b), (c) SC PHASE CONTROL
Q134, Q135 CAMERA/RCU SELECT
Q131~Q133 SERIAL DATA OUTPUT
Q113~Q115 SERIAL CLOCK/TALLY OUTPUT
SW1 SC PHASE COARSE SWITCH-1
SW2 SC PHASE COARSE SWITCH-2
MAIN VIC BOARD
SYNC SEPARATION
BURST GATE
Q1, Q2 AMP
Q3 BUFFER
Q4 EXT/INT SELECT
Q5 AMP
Q6 SYNC SEPARATION
Q7 SC PHASE FINE CONTROL
Q8, Q9 AMP
Q13 C/B SELECT
Q10 BUFFER
Q11 SC PHASE SHIFTER
Q12 BUFFER
Q14 AMP
Q23 BUFFER
Q15, Q16 AMP
Q17 BUFFER
IC2(a) G/L BSC OUTPUT
IC2(b) WHITE PULSE GATE
(PAL only)
IC1 GAIN CONT
FLEXIBLE WIRE
32PIN CONNECTOR BOARD
TO MOTHER BOARD . . . CN14
CN9
1 SC90° SW1 OUT
2 +8.6V IN
3 RCU INFO OUT
4 SC90° SW2 OUT
5 L/V VIDEO OUT
6 EXT/INT + LCH IN
7 BURST GATE PULSE IN
8 G/L SYNC OUT
9 TEMP INFO IN
10 H PHASE CONT OUT
11 G/L BSC OUT
CN10
1 SERIAL CLOCK/TALLY OUT
2 SERIAL DATA OUT
3 CAMERA/COLOR BAR SELECT OUT
4 TEMP INFO OUT
5 SC IN
6 H RESET PULSE IN
7 BFP IN
8 C/B SELECT IN/OUT
9 SYNC IN
10 BLK IN
11 NOT USED
CN1
1 TEMP INFO OUT
2 CAMERA/COLOR BAR SELECT OUT
3 SERIAL CLOCK/TALLY OUT
4 SC90° SW2 OUT
5 VIDEO IN
6 SC90° SW1 OUT
7 NOT USED
8 EXT/INT +LCH IN
9 NOT USED
10 RCU INFO OUT
11 AUDIO GROUND
12 C/B SELECT IN/OUT
13 BURST GATE PULSE IN
14 SC IN
15 G/L BSC OUT
16 G/L SYNC OUT
17 SERIAL DATA OUT
18 H RESET PULSE IN
19 BLK IN
20 BFP IN
21 L/V VIDEO OUT
22 SYNC IN
23 GROUND
24 TEMP INFO IN
25 GROUND
26 H PHASE CONT OUT
27 +12V OUT
28 VIDEO IN/OUT : COLOR BAR OUT
29 NOT USED
30 GROUND (VIDEO)
31 +8.6V IN
32 NOT USED
CN8
1 VIDEO OUT
2 GROUND
CN2 VIDEO OUTPUT CONNECTOR
CN4
1 +12V OUT
2 GROUND
3 VIDEO IN
4 GROUND(VIDEO)
5 GROUND
6 VIDEO IN/OUT : COLOR BAR OUT
BI1 (E1)
CN2
1 NOT USED
2 NOT USED
+1.8V REGULATOR
IC5(b) +1.8V REGULATOR
COLOR BAR SIGNAL GENERATOR
IC101(b) INVERTER
IC101(c) INVERTER
IC101(a), (d) CLOCK GENE.
IC102 COUNTER
Q101~Q103 BUFFER
Q104 BUFFER
IC103(a), (b) AMP
VR101 C/B WIDTH
VR102 C/B R-YL WHITE BAL
VR111 C/B B-YL WHITE BAL
TP1 (C/B B-YL WHITE BAL)
TP2 (C/B R-YL WHITE BAL)
COLOR BAR OUTPUT
Q105 C/B SELECT
Q106, Q107 AMP
Q108 SYNC MIX
Q112 C/B SELECT
Q109~Q111 COLOR BAR OUTPUT
SC PHASE CONTROL
Q116, Q117 SC PHASE CONT
Q118, Q119 AMP
Q120 BUFFER
Q121, Q122 C/B SC PHASE SHIFTER
(PAL only)
Q123, Q124 C/B SC PHASE SHIFTER
Q125 SCR BALANCE
VR103 SCR BALANCE
CT1 SC 90° PHASE
CT2 SC 270° PHASE
COLOR CHROMA ENCODING
IC105
IC106
R-Y BALANCED MODULATOR
B-Y BALANCED MODULATOR
Q127 BURST PHASE
Q128 BUFFER
Q126 BURST GAIN CONT
Q129 BUFFER
Q130 AMP
VR104 BURST PHASE
VR105 BURST GAIN
VR106 C/B B-YL CARRIER BAL
VR107 C/B R-YL CARRIER BAL
VR108 R-Y/B-Y BALANCE
VR109 C/B CHROMA GAIN
3
4
5
6
7
8
9

	NTSC	PAL
CF1	3.58MHz	4.3MHz
CF2	3.58MHz	4.43MHz
CF3	3.58MHz	4.3MHz
CF4	3.58MHz	4.43MHz
CF101	3.58MHz	4.43MHz
CF102	3.58MHz	4.43MHz

MAIN VIC BOARD

	NTSC	PAL	LOCATION
R237	Not used	120KΩ	C7
C10	33pF	27pF	C7
C20	18pF	12pF	C6
C162	Not used	120pF	C7

MAIN BOARD

	NTSC	PAL	LOCATION
R121	39KΩ	68KΩ	B6
R138	47KΩ	Not used	B7
R166	750Ω	820Ω	A3
R168	0Ω	2.2KΩ	A3
R190	3.9KΩ	5.6KΩ	A5
R191	3.9KΩ	390Ω	A5
R194	2.2KΩ	820Ω	A5
R232	2.2KΩ	0Ω	A3
R238	Not used	24KΩ	B7
C122	15pF	5pF	A3
C127	22pF	12pF	A4
C163	Not used	47μF/10V	B7

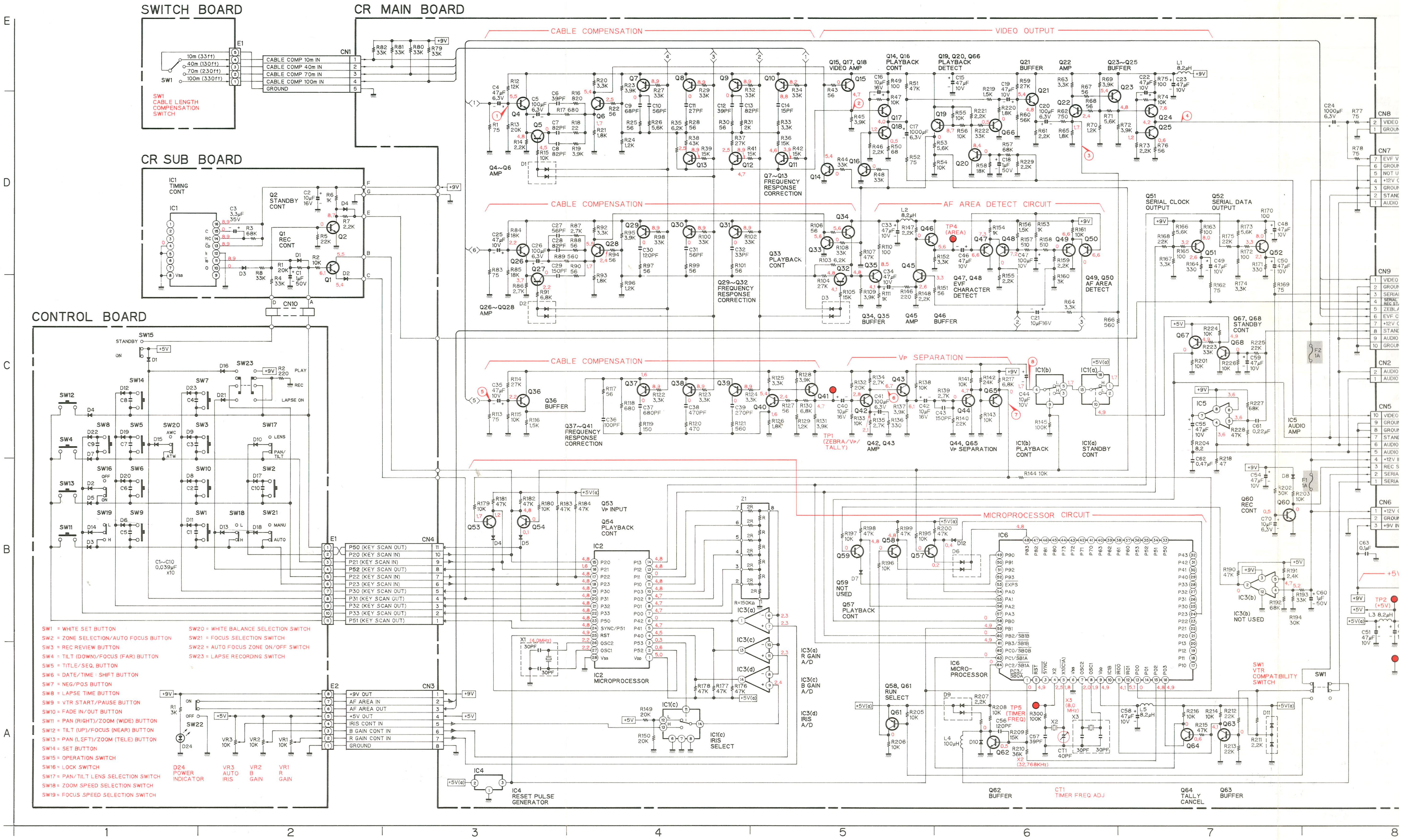
PRODUCUT SAFETY NOTE

The shaded area on this schematic diagram incorporates special features important for protection from X-Radiation, fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for tha critical components in the shaded areas of the schematic.

( ) . . . Color bar

☐ . . . Gen-lock

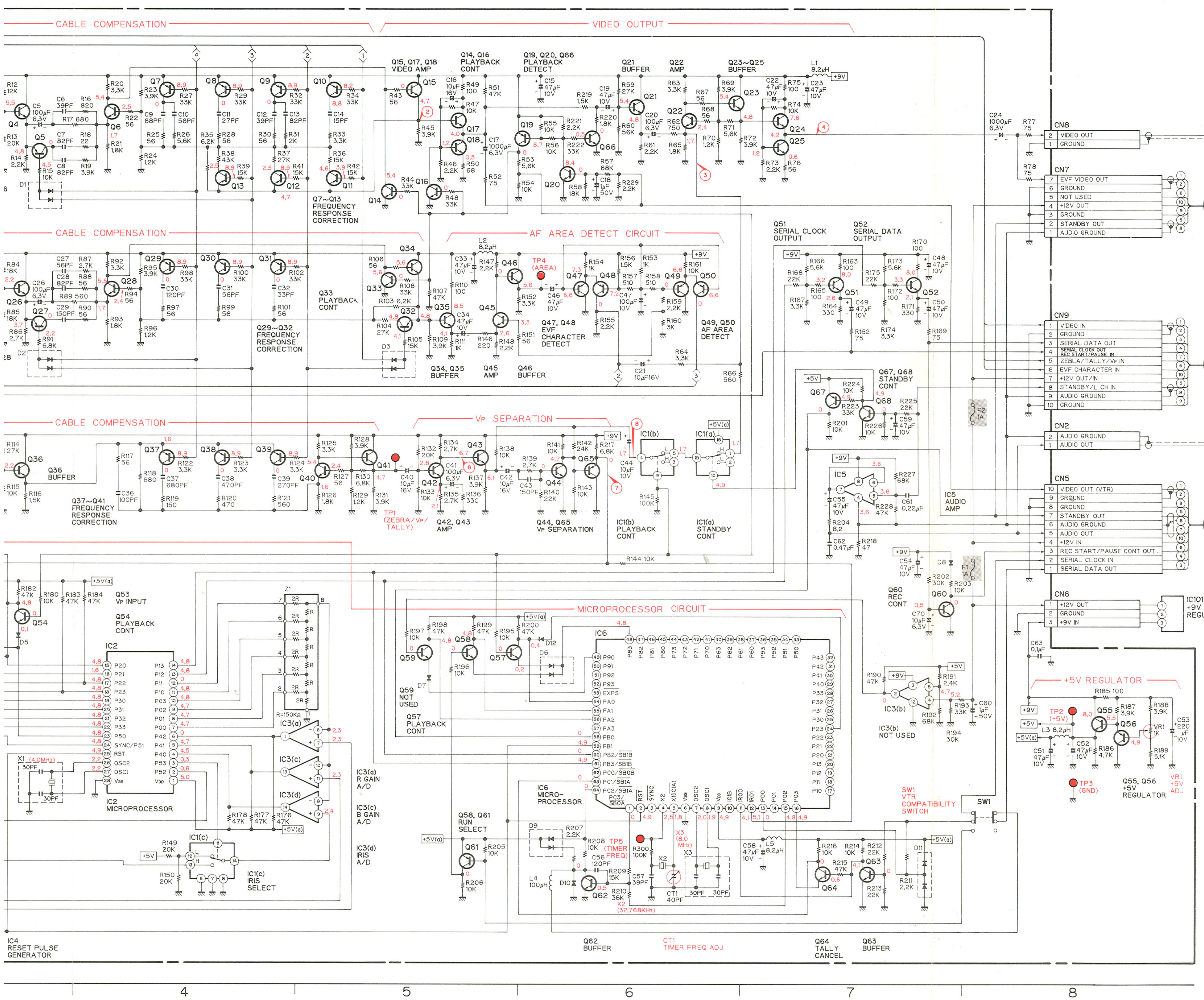
SCHEMATIC DIAGRAM OF CAMERA REMOTE CONTROLLER WV-CR12


SWITCH BOARD
CR MAIN BOARD
CR SUB BOARD
CONTROL BOARD
SW1 CABLE LENGTH COMPENSATION SWITCH
10m (33ft)
40m (130ft)
70m (230ft)
100m (330ft)
CABLE COMP 10m IN
CABLE COMP 40m IN
CABLE COMP 70m IN
CABLE COMP 100m IN
GROUND
CABLE COMPENSATION
VIDEO OUTPUT
AF AREA DETECT CIRCUIT
Vp SEPARATION
MICROPROCESSOR CIRCUIT
IC1 TIMING CONT
Q2 STANDBY CONT
Q1 REC CONT
Q4~Q6 AMP
Q7~Q13 FREQUENCY RESPONSE CORRECTION
Q15, Q17, Q18 VIDEO AMP
Q14, Q16 PLAYBACK CONT
Q19, Q20, Q66 PLAYBACK DETECT
Q21 BUFFER
Q22 AMP
Q23~Q25 BUFFER
Q26~Q28 AMP
Q29~Q32 FREQUENCY RESPONSE CORRECTION
Q33 PLAYBACK CONT
Q34, Q35 BUFFER
Q45 AMP
Q46 BUFFER
Q47, Q48 EVF CHARACTER DETECT
Q49, Q50 AF AREA DETECT
Q51 SERIAL CLOCK OUTPUT
Q52 SERIAL DATA OUTPUT
Q36 BUFFER
Q37~Q41 FREQUENCY RESPONSE CORRECTION
TP1 (ZEBRA/Vp/TALLY)
Q42, Q43 AMP
Q44, Q65 Vp SEPARATION
IC1(b) PLAYBACK CONT
IC1(a) STANDBY CONT
Q67, Q68 STANDBY CONT
IC5 AUDIO AMP
Q60 REC CONT
Q53 Vp INPUT
Q54 PLAYBACK CONT
IC2 MICROPROCESSOR
IC3(a) R GAIN A/D
IC3(c) B GAIN A/D
IC3(d) IRIS A/D
IC1(c) IRIS SELECT
IC4 RESET PULSE GENERATOR
Q59 NOT USED
Q57 PLAYBACK CONT
Q58, Q61 RUN SELECT
IC6 MICRO-PROCESSOR
IC3(b) NOT USED
SW1 VTR COMPATIBILITY SWITCH
Q62 BUFFER
CT1 TIMER FREQ ADJ
Q64 TALLY CANCEL
Q63 BUFFER
TP4 (AREA)
TP5 (TIMER FREQ)
TP2 (+5V)
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
P50 (KEY SCAN OUT)
P20 (KEY SCAN IN)
P21 (KEY SCAN IN)
P52 (KEY SCAN OUT)
P22 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
P32 (KEY SCAN OUT)
P33 (KEY SCAN OUT)
P51 (KEY SCAN OUT)
+9V OUT
AF AREA IN
AF AREA OUT
+5V OUT
IRIS CONT IN
B GAIN CONT IN
R GAIN CONT IN
GROUND
SW1 = WHITE SET BUTTON
SW2 = ZONE SELECTION/AUTO FOCUS BUTTON
SW3 = REC REVIEW BUTTON
SW4 = TILT (DOWN)/FOCUS (FAR) BUTTON
SW5 = TITLE/SEQ. BUTTON
SW6 = DATE/TIME : SHIFT BUTTON
SW7 = NEG/POS BUTTON
SW8 = LAPSE TIME BUTTON
SW9 = VTR START/PAUSE BUTTON
SW10 = FADE IN/OUT BUTTON
SW11 = PAN (RIGHT)/ZOOM (WIDE) BUTTON
SW12 = TILT (UP)/FOCUS (NEAR) BUTTON
SW13 = PAN (LEFT)/ZOOM (TELE) BUTTON
SW14 = SET BUTTON
SW15 = OPERATION SWITCH
SW16 = LOCK SWITCH
SW17 = PAN/TILT LENS SELECTION SWITCH
SW18 = ZOOM SPEED SELECTION SWITCH
SW19 = FOCUS SPEED SELECTION SWITCH
SW20 = WHITE BALANCE SELECTION SWITCH
SW21 = FOCUS SELECTION SWITCH
SW22 = AUTO FOCUS ZONE ON/OFF SWITCH
SW23 = LAPSE RECORDING SWITCH
D24 POWER INDICATOR
VR3 AUTO IRIS
VR2 B GAIN
VR1 R GAIN
E
D
C
B
A
1
2
3
4
5
6
7
8

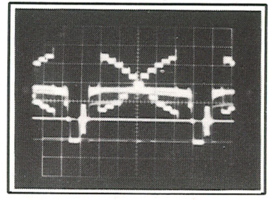
PRODUCUT SAFETY NOTE

The shaded area on this schematic diagram incorporates special features important for protection from X-Radiation, fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for tha critical components in the shaded areas of the schematic.

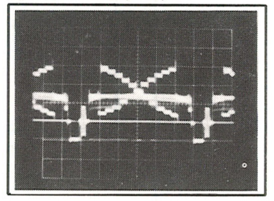
SCHEMATIC DIAGRAM OF CAMERA REMOTE CONTROLLER WV-CR12


CABLE COMPENSATION
VIDEO OUTPUT
Q15, Q17, Q18 VIDEO AMP
Q14, Q16 PLAYBACK CONT
Q19, Q20, Q66 PLAYBACK DETECT
Q21 BUFFER
Q22 AMP
Q23~Q25 BUFFER
Q7~Q13 FREQUENCY RESPONSE CORRECTION
CN2 MONITOR OUTPUT CONNECTOR
CN8
2 VIDEO OUT
1 GROUND
CN7
7 EVF VIDEO OUT
6 GROUND
5 NOT USED
4 +12V OUT
3 GROUND
2 STANDBY OUT
1 AUDIO GROUND
CN4 EVF CONNECTOR
CABLE COMPENSATION
AF AREA DETECT CIRCUIT
Q33 PLAYBACK CONT
Q29~Q32 FREQUENCY RESPONSE CORRECTION
Q34, Q35 BUFFER
Q45 AMP
Q46 BUFFER
Q47, Q48 EVF CHARACTER DETECT
Q49, Q50 AF AREA DETECT
TP4 (AREA)
Q51 SERIAL CLOCK OUTPUT
Q52 SERIAL DATA OUTPUT
CN9
1 VIDEO IN
2 GROUND
3 SERIAL DATA OUT
4 SERIAL CLOCK OUT REC START/PAUSE IN
5 ZEBLA/TALLY/VP IN
6 EVF CHARACTER IN
7 +12V OUT/IN
8 STANDBY/L CH IN
9 AUDIO GROUND
10 GROUND
CN1 10PIN CAMERA CONNECTOR
Q67, Q68 STANDBY CONT
CN3 AUDIO OUTPUT JACK
CN2
2 AUDIO GROUND
1 AUDIO OUT
CABLE COMPENSATION
VP SEPARATION
Q36 BUFFER
Q37~Q41 FREQUENCY RESPONSE CORRECTION
TP1 (ZEBRA/VP/TALLY)
Q42, Q43 AMP
Q44, Q65 VP SEPARATION
IC1(b) PLAYBACK CONT
IC1(a) STANDBY CONT
IC5 AUDIO AMP
CN5
10 VIDEO OUT (VTR)
9 GROUND
8 GROUND
7 STANDBY OUT
6 AUDIO GROUND
5 AUDIO OUT
4 +12V IN
3 REC START/PAUSE CONT OUT
2 SERIAL CLOCK IN
1 SERIAL DATA OUT
CN5 10PIN VTR CONNECTOR
Q60 REC CONT
CN6
1 +12V OUT
2 GROUND
3 +9V IN
IC101 +9V REGULATOR
Q53 VP INPUT
Q54 PLAYBACK CONT
IC2 MICROPROCESSOR
MICROPROCESSOR CIRCUIT
Q59 NOT USED
Q57 PLAYBACK CONT
IC6 MICRO-PROCESSOR
IC3(a) R GAIN A/D
IC3(c) B GAIN A/D
IC3(d) IRIS A/D
IC3(b) NOT USED
+5V REGULATOR
TP2 (+5V)
TP3 (GND)
Q55, Q56 +5V REGULATOR
VR1 +5V ADJ
SW1 VTR COMPATIBILITY SWITCH
Q58, Q61 RUN SELECT
IC1(c) IRIS SELECT
TP5 (TIMER FREQ)
X3 (8.0 MHz)
X2 (32.768KHz)
CT1 TIMER FREQ ADJ
IC4 RESET PULSE GENERATOR
Q62 BUFFER
Q64 TALLY CANCEL
Q63 BUFFER
4
5
6
7
8

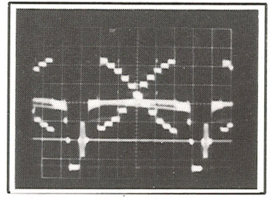
1. 0.2V/DIV, 10µs/DIV



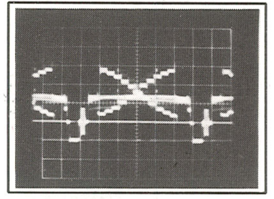
2. 0.5V/DIV, 10µs/DIV



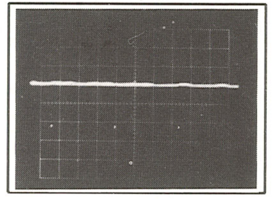
3. 0.05V/DIV, 10µs/DIV



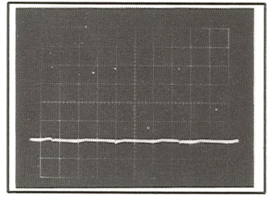
4. 0.5V/DIV, 10µ/DIV



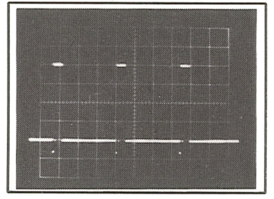
5. 0.05V/DIV, 5ms/DIV



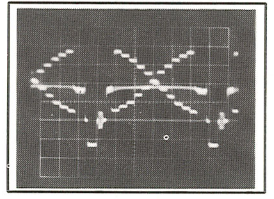
6. 0.5V/DIV, 5ms/DIV



7. 1V/DIV, 5ms/DIV



0.05V/DIV, 10µs/DIV



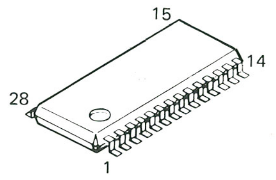
WV-CR12

IC101	AN6541		B8

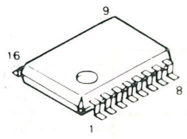
MAIN BOARD

IC1	MN4053BS		A4
IC2	MN1551CVT2		B4
IC3	M5234FP		B5, A5, B7
IC4	MN1280T		A3
IC5	NJM3414M		C7
IC6	MN1754CVS2		B6
Q4	2SD601-QR	(Y)	D3
Q5	2SA1022-C	(E)	D3
Q6	2SC2404-CD	(U)	D4
Q7	2SA1022-C	(E)	E4
Q8	2SA1022-C	(E)	E4
Q9	2SA1022-C	(E)	E4
Q10	2SA1022-C	(E)	E5
Q11	2SA1022-C	(E)	D5
Q12	2SA1022-C	(E)	D4
Q13	2SA1022-C	(E)	D4
Q14	2SC2404-CD	(U)	D5
Q15	2SC2404-CD	(U)	E5
Q16	2SD601-QR	(Y)	D5
Q17	2SD601-QR	(Y)	D5
Q18	2SD601-QR	(Y)	D5
Q19	2SB709-Q	(A)	D6
Q20	2SD601-QR	(Y)	D6
Q21	2SD601-QR	(Y)	D6
Q22	2SC2404-CD	(U)	D6
Q23	2SD601-QR	(Y)	D7
Q24	2SD601-QR	(Y)	D7
Q25	2SD601-QR	(Y)	D7
Q26	2SD601-QR	(Y)	D3
Q27	2SA1022-C	(E)	C3
Q28	2SC2404-CD	(U)	D4
Q29	2SD601-QR	(Y)	D4
Q30	2SD601-QR	(Y)	D4
Q31	2SD601-QR	(Y)	D4
Q32	2SD601-QR	(Y)	C5
Q33	2SC2404-CD	(U)	D5
Q34	2SC2404-CD	(U)	D5
Q35	2SD601-QR	(Y)	C5
Q36	2SD601-QR	(Y)	C3
Q37	2SD601-QR	(Y)	C4
Q38	2SD601-QR	(Y)	C4
Q39	2SD601-QR	(Y)	C4
Q40	2SC2404-CD	(U)	C5
Q41	2SD601-QR	(Y)	C5
Q42	2SC2404-CD	(U)	C5
Q43	2SD601-QR	(Y)	C5
Q44	2SC2404-CD	(U)	C6
Q45	2SC2404-CD	(U)	C5
Q46	2SD601-QR	(Y)	D6
Q47	2SA1022-C	(E)	D6
Q48	2SA1022-C	(E)	D6
Q49	2SA1022-C	(E)	D6
Q50	2SA1022-C	(E)	D6
Q51	2SD601-QR	(Y)	D7
Q52	2SD601-QR	(Y)	D7
Q53	2SD601-QR	(Y)	B3
Q54	2SD601-QR	(Y)	B3
Q55	2SD601-QR	(Y)	B8
Q56	2SB709-Q	(A)	B8
Q57	2SD601-QR	(Y)	B6
Q58	2SD601-QR	(Y)	B5
Q59	2SD601-QR	(Y)	B5
Q60	2SD601-QR	(Y)	A7
Q61	2SB709-Q	(A)	A5
Q62	2SD601-QR	(Y)	A6
Q63	2SD601-QR	(Y)	A7
Q64	2SD601-QR	(Y)	A7
Q65	2SB709-Q	(A)	C6
Q66	2SD601-QR	(Y)	D6
Q67	2SB709-Q	(A)	C7
Q68	2SD601-QR	(Y)	C7
D1	MA151WA	(MN)	D3
D2	MA151WA	(MN)	C3
D3	MA151WA	(MN)	C5
D4	MA151K	(MH)	B3
D5	MA151K	(MH)	B3
D6	MA151WK	(MT)	B6
D7	MA151K	(MH)	B5
D8	MA151K	(MH)	B7
D9	MA153	(MC)	A6
D10	MA151K	(MH)	A6
D11	MA153	(MC)	A7
D12	MA151K	(MH)	B6

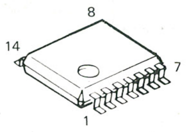
MN1551CVT2



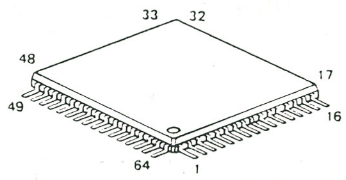
MN4053BS
MN4538BS



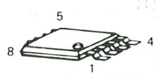
M5234FP



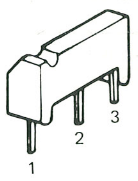
MN1754CVS2


33
32
48
17
49
16
64
1

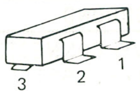
NJM3414M



MN1280T

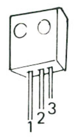


MA151WK

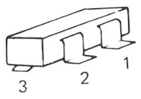


1 : Anode
2 Anode
3: Cathode

AN6541

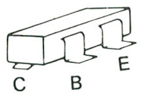


MA153

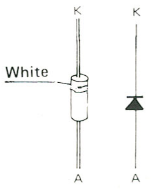


1: Cathode
2: Anode
3: Common

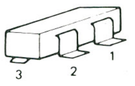
2SA1022-C
2SB709-Q
2SC2404-CD
2SD601-QR



MA165

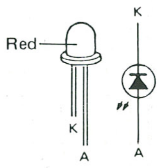


MA151WA

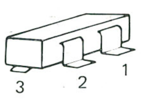


1 : Cathode
2 : Cathode
3 : Anode

LN29RD



MA151K



1: NC
2: Anode
3 Cathode

For SCHEMATIC DIAGRAM

CONTROL BOARD

D1	MA165		B1
D2	MA165		B1
D3	MA165		B1
D4	MA165		C1
D5	MA165		B1
D6	MA165		B1
D7	MA165		C1
D8	MA165		B1
D9	MA165		C1
D10	MA165		C2
D11	MA165		B1
D12	MA165		C1
D13	MA165		B2
D14	MA165		B1
D15	MA165		C1
D16	MA165		C2
D17	MA165		B2
D18	MA165		B2
D19	MA165		C1
D20	MA165		B1
D21	MA165		C2
D22	MA165		C1
D23	MA165		C1
D24	LN29RD		A1

CR SUB BOARD

IC1	YFMN4538BS		D1
Q1	2SD601-QR	(Y)	D2
Q2	2SD601-QR	(Y)	D2

WV-CR12

IC101	AN6541		A1

MAIN BOARD

IC1	MN4053BS		C5
IC2	MN1551CVT3S		C2
IC3	M5234FP		B2
IC4	MN1280T		C2
IC5	NJM3414M		B1
IC6	MN1754CVS2		C2
Q4	2SD601-QR	(Y)	B3
Q5	2SA1022-C	(E)	B3
Q6	2SC2404-CD	(U)	B3
Q7	2SA1022-C	(E)	B3
Q8	2SA1022-C	(E)	B3
Q9	2SA1022-C	(E)	B3
Q10	2SA1022-C	(E)	B4
Q11	2SA1022-C	(E)	B4
Q12	2SA1022-C	(E)	B4
Q13	2SA1022-C	(E)	B4
Q14	2SC2404-CD	(U)	B4
Q15	2SC2404-CD	(U)	B4
Q16	2SD601-QR	(Y)	B4
Q17	2SD601-QR	(Y)	B5
Q18	2SD601-QR	(Y)	B4
Q19	2SB709-Q	(A)	B5
Q20	2SD601-QR	(Y)	B5
Q21	2SD601-QR	(Y)	B5
Q22	2SC2404-CD	(U)	B5
Q23	2SD601-QR	(Y)	B5
Q24	2SD601-QR	(Y)	B6
Q25	2SD601-QR	(Y)	B6
Q26	2SD601-QR	(Y)	B5
Q27	2SA1022-C	(E)	B5
Q28	2SC2404-CD	(U)	B5
Q29	2SD601-QR	(Y)	B5
Q30	2SD601-QR	(Y)	B5
Q31	2SD601-QR	(Y)	B6
Q32	2SD601-QR	(Y)	B6
Q33	2SC2404-CD	(U)	B6
Q34	2SC2404-CD	(U)	B6
Q35	2SD601-QR	(Y)	B6
Q36	2SD601-QR	(Y)	B3
Q37	2SD601-QR	(Y)	C4
Q38	2SD601-QR	(Y)	C4
Q39	2SD601-QR	(Y)	C4
Q40	2SC2404-CD	(U)	C4
Q41	2SD601-QR	(Y)	B4
Q42	2SC2404-CD	(U)	C4
Q43	2SD601-QR	(Y)	B4
Q44	2SC2404-CD	(U)	C5
Q45	2SC2404-CD	(U)	C5
Q46	2SD601-QR	(Y)	C6
Q47	2SA1022-C	(E)	C6
Q48	2SA1022-C	(E)	C6
Q49	2SA1022-C	(E)	C6
Q50	2SA1022-C	(E)	C6
Q51	2SD601-QR	(Y)	C3
Q52	2SD601-QR	(Y)	B3
Q53	2SD601-QR	(Y)	C3
Q54	2SD601-QR	(Y)	C3
Q55	2SD601-QR	(Y)	B1
Q56	2SB709-Q	(A)	B1
Q57	2SD601-QR	(Y)	C2
Q58	2SD601-QR	(Y)	C1
Q59	2SD601-QR	(Y)	B2
Q60	2SD601-QR	(Y)	B1
Q61	2SB709-Q	(A)	B1
Q62	2SD601-QR	(Y)	C1
Q63	2SD601-QR	(Y)	C1
Q64	2SD601-QR	(Y)	C1
Q65	2SB709-Q	(A)	C5
Q66	2SD601-QR	(Y)	B4
Q67	2SB709-Q	(A)	B1
Q68	2SD601-QR	(Y)	B2
D1	MA151WA	(MN)	B3
D2	MA151WA	(MN)	C5
D3	MA151WA	(MN)	B6
D4	MA151K	(MH)	C2
D5	MA151K	(MH)	C3
D6	MA151WK	(MT)	C2
D7	MA151K	(MH)	C2
D8	MA151K	(MH)	B1
D9	MA153	(MC)	B1
D10	MA151K	(MH)	B1
D11	MA153	(MC)	B1
D12	MA151K	(MH)	C2

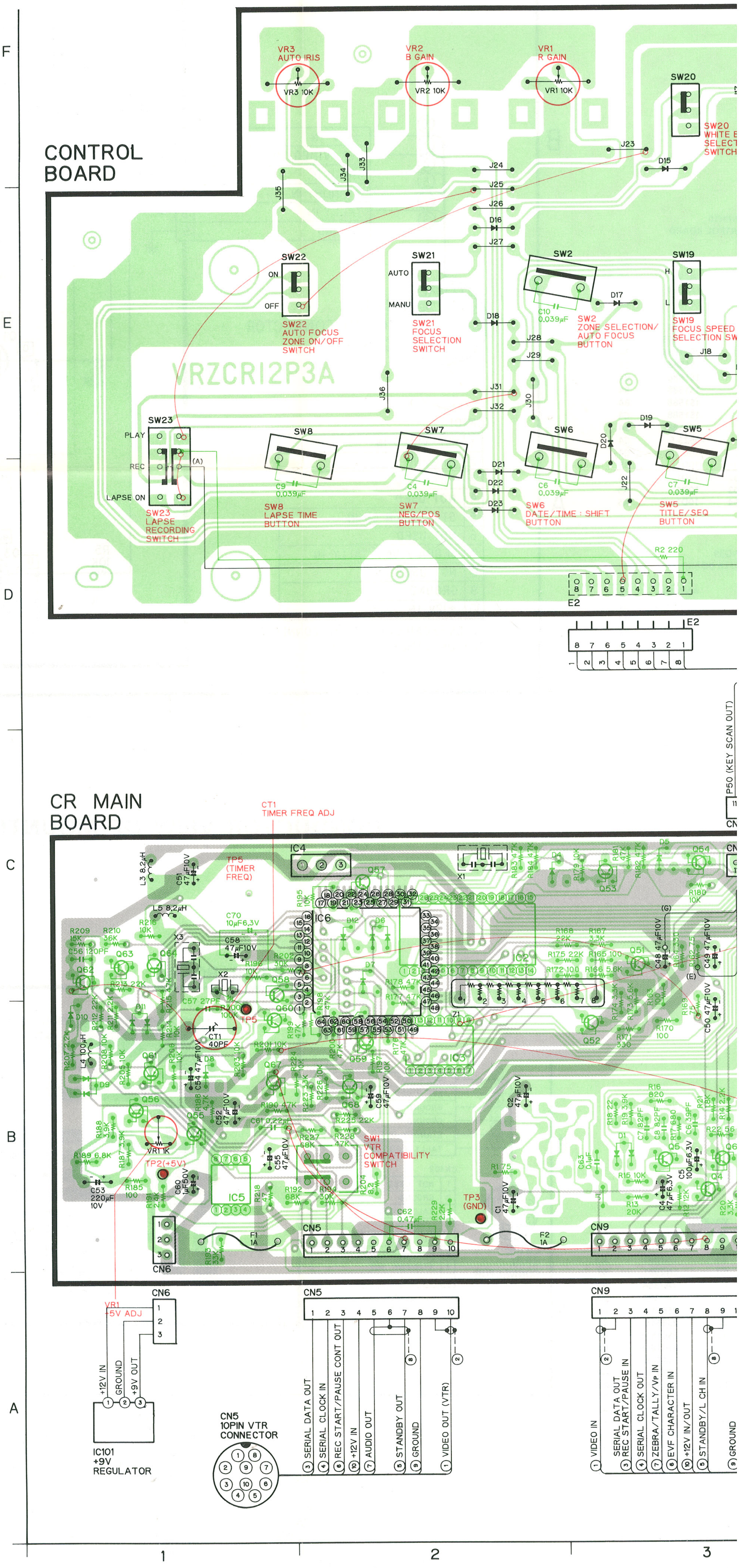
CONTROL BOARD

D1	MA165		E6
D2	MA165		E6
D3	MA165		E5
D4	MA165		E5
D5	MA165		E4
D6	MA165		E5
D7	MA165		E5
D8	MA165		E4
D9	MA165		E4
D10	MA165		E4
D11	MA165		E4
D12	MA165		E4
D13	MA165		E3
D14	MA165		E3
D15	MA165		F3
D16	MA165		E2
D17	MA165		E3
D18	MA165		E2
D19	MA165		E3
D20	MA165		E3
D21	MA165		D2
D22	MA165		D2
D23	MA165		D2
D24	LN29RD		F6

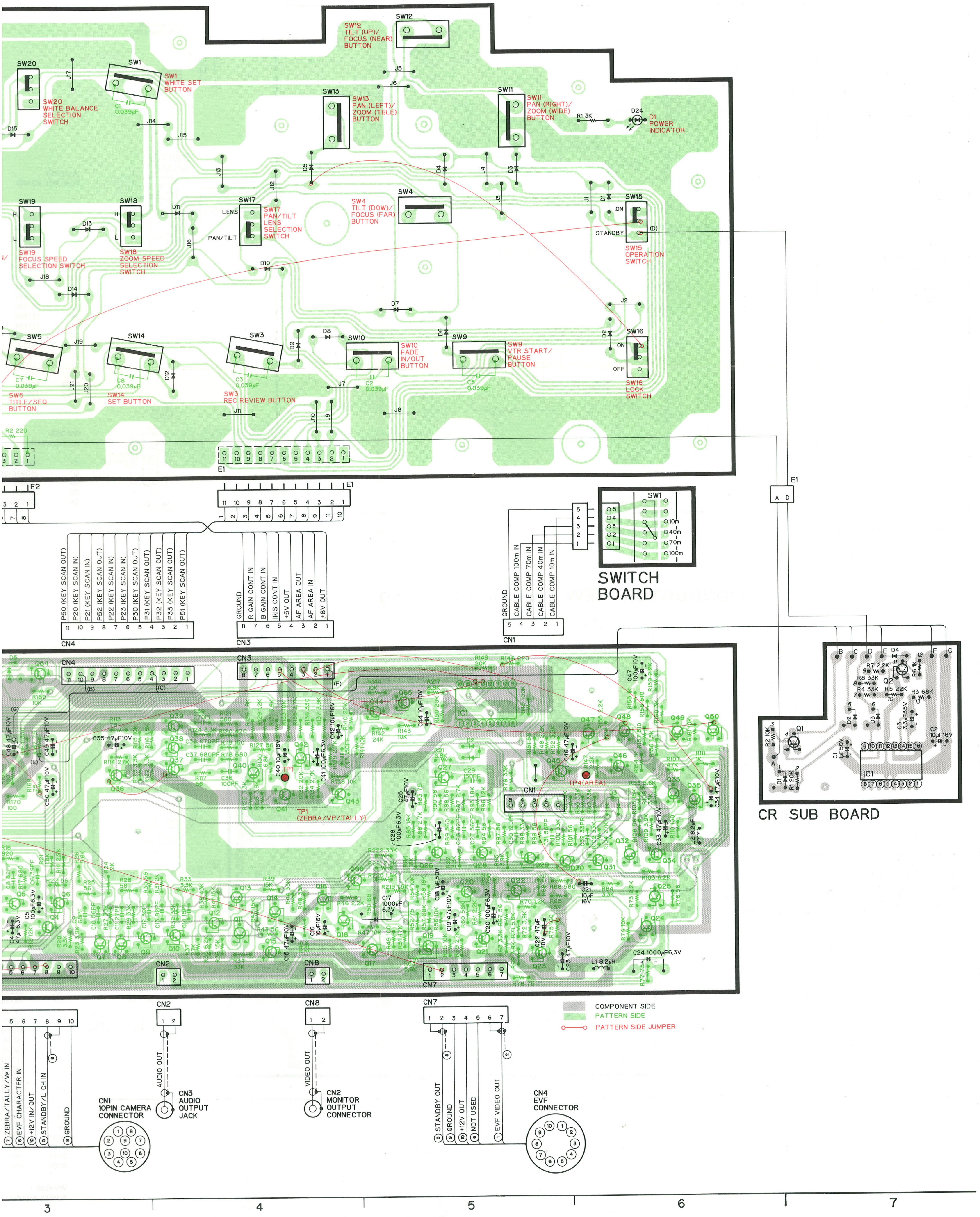
CR SUB BOARD

IC1	YFMN4538BS		B7
Q1	2SD601-QR	(Y)	C7
Q2	2SD601-QR	(Y)	C7

CONDUCTOR VIEW OF CAMERA

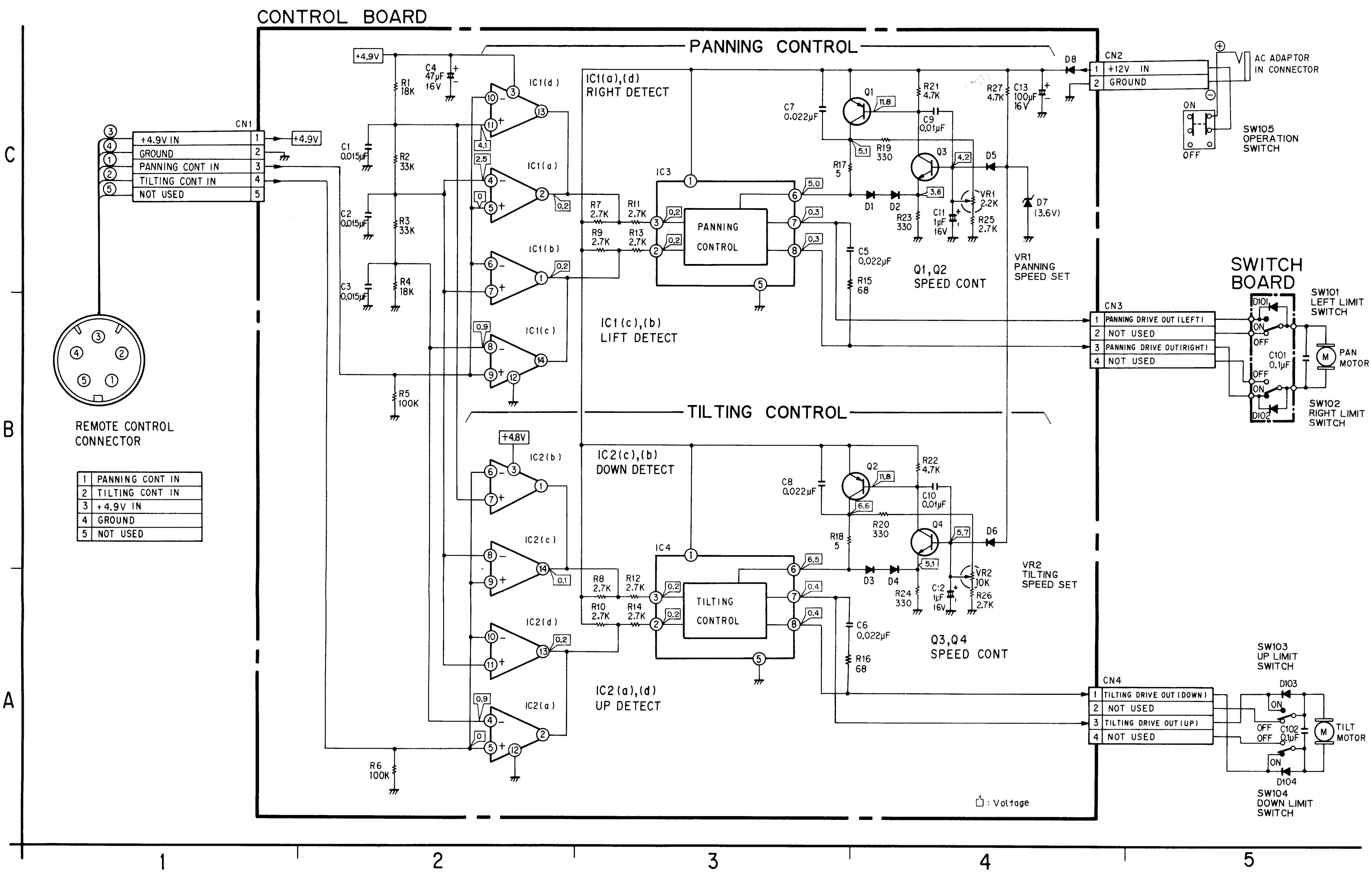

F
E
D
C
B
A
1
2
3
CONTROL BOARD
VR3 AUTO IRIS
VR3 10K
VR2 B GAIN
VR2 10K
VR1 R GAIN
VR1 10K
SW20
SW20 WHITE BALANCE SELECT SWITCH
J23
J24
J25
J26
J27
J28
J29
J30
J31
J32
J33
J34
J35
J36
J22
J18
D15
D16
D17
D18
D19
D20
D21
D22
D23
SW22
ON
OFF
SW22 AUTO FOCUS ZONE ON/OFF SWITCH
SW21
AUTO
MANU
SW21 FOCUS SELECTION SWITCH
SW2
C10 0.039μF
SW2 ZONE SELECTION/ AUTO FOCUS BUTTON
SW19
H
L
SW19 FOCUS SPEED SELECTION SWITCH
VRZCR12P3A
SW23
PLAY
REC
LAPSE ON
(A)
SW23 LAPSE RECORDING SWITCH
SW8
C9 0.039μF
SW8 LAPSE TIME BUTTON
SW7
C4 0.039μF
SW7 NEG/POS BUTTON
SW6
C6 0.039μF
SW6 DATE/TIME : SHIFT BUTTON
SW5
C7 0.039μF
SW5 TITLE/SEQ BUTTON
R2 220
E2
8 7 6 5 4 3 2 1
P50 (KEY SCAN OUT)
CR MAIN BOARD
CT1 TIMER FREQ ADJ
TP5 (TIMER FREQ)
IC4
IC6
X1
X2
X3
CT1 40PF
L3 8.2μH
L5 8.2μH
L4 100μH
C70 10μF6.3V
C58 47μF10V
C57 27PF
C53 220μF 10V
C60 47μF10V
C55 47μF10V
C62 0.47μF
C52 47μF10V
C54 47μF10V
C48 47μF10V
C49 47μF10V
C50 47μF10V
Q51
Q52
Q53
Q54
Q56
Q57
Q58
Q59
Q60
Q61
Q62
Q63
Q64
Q65
Q67
Q68
R209 10K
R210 36K
R56 120PF
R196 10K
R200 47
R201 10K
R199 47K
R225 22K
R227 68K
R192 68K
R185 100
R189 6.8K
R188 22K
R187 3.9K
R175 22K
R165 100
R166 5.6K
R172 100
R168 22K
R167 3.3K
R178 47K
R177 47K
R170 100
R171 330
R180 10K
VR1 1K
TP2(+5V)
IC5
SW1 VTR COMPATIBILITY SWITCH
TP3 (GND)
C1 47μF10V
R15 10K
C63
F1 1A
F2 1A
CN5
CN6
CN9
VR1 +5V ADJ
+12V IN
GROUND
+9V OUT
IC101 +9V REGULATOR
CN5 10PIN VTR CONNECTOR
③ SERIAL DATA OUT
④ SERIAL CLOCK IN
⑥ REC START/PAUSE CONT OUT
⑩ +12V IN
⑦ AUDIO OUT
⑤ STANDBY OUT
⑨ GROUND
① VIDEO OUT (VTR)
① VIDEO IN
③ SERIAL DATA OUT REC START/PAUSE IN
④ SERIAL CLOCK OUT
② ZEBRA/TALLY/Vp IN
⑥ EVF CHARACTER IN
⑩ +12V IN/OUT
⑤ STANDBY/L CH IN
⑨ GROUND

MERA REMOTE CONTROLLER WV-CR12



SW12
SW12 TILT (UP)/ FOCUS (NEAR) BUTTON
SW20
SW20 WHITE BALANCE SELECTION SWITCH
SW1
SW1 WHITE SET BUTTON
C1 0,039μF
SW13
SW13 PAN (LEFT)/ ZOOM (TELE) BUTTON
SW11
SW11 PAN (RIGHT)/ ZOOM (WIDE) BUTTON
R1 3,3K
D24
D1 POWER INDICATOR
SW19
SW19 FOCUS SPEED SELECTION SWITCH
SW18
SW18 ZOOM SPEED SELECTION SWITCH
SW17
LENS
PAN/TILT
SW17 PAN/TILT LENS SELECTION SWITCH
SW4
SW4 TILT (DOWN)/ FOCUS (FAR) BUTTON
SW15
ON
STANDBY
SW15 OPERATION SWITCH
SW5
C7 0,039μF
SW5 TITLE/SEQ BUTTON
SW14
C8 0,039μF
SW14 SET BUTTON
SW3
C3 0,039μF
SW3 REC REVIEW BUTTON
SW10
SW10 FADE IN/OUT BUTTON
C2 0,039μF
SW9
SW9 VTR START/ PAUSE BUTTON
C5 0,039μF
SW16
ON
OFF
SW16 LOCK SWITCH
R2 220
E1
E2
SW1
10m
40m
70m
100m
SWITCH BOARD
GROUND
CABLE COMP 100m IN
CABLE COMP 70m IN
CABLE COMP 40m IN
CABLE COMP 10m IN
CN1
P50 (KEY SCAN OUT)
P20 (KEY SCAN IN)
P21 (KEY SCAN IN)
P52 (KEY SCAN OUT)
P22 (KEY SCAN IN)
P23 (KEY SCAN IN)
P30 (KEY SCAN OUT)
P31 (KEY SCAN OUT)
P32 (KEY SCAN OUT)
P33 (KEY SCAN OUT)
P51 (KEY SCAN OUT)
CN4
GROUND
R GAIN CONT IN
B GAIN CONT IN
IRIS CONT IN
+5V OUT
AF AREA OUT
AF AREA IN
+8V OUT
CN3
TP1
TP1 (ZEBRA/VP/TALLY)
TP4(AREA)
IC1
CN1
CN2
CN8
CN7
L1 8,2μH
C24 1000μF6,3V
CR SUB BOARD
Q1
Q2
IC1
R2 10K
R1 20K
R7 2,2K
R8 33K
R4 33K
R5 22K
R3 68K
R6 1K
C1 1μF50V
C3 3,3μF35V
C2 10μF16V
D4
▨ COMPONENT SIDE
🟩 PATTERN SIDE
o—o PATTERN SIDE JUMPER
ZEBRA/TALLY/Vp IN
EVF CHARACTER IN
+12V IN/OUT
STANDBY/L CH IN
GROUND
CN1 10PIN CAMERA CONNECTOR
AUDIO OUT
CN3 AUDIO OUTPUT JACK
VIDEO OUT
CN2 MONITOR OUTPUT CONNECTOR
STANDBY OUT
GROUND
+12V OUT
NOT USED
EVF VIDEO OUT
CN4 EVF CONNECTOR
3
4
5
6
7

SCHEMATIC DIAGRAM OF PAN/TILT HEAD WV-PH10


CONTROL BOARD
PANNING CONTROL
TILTING CONTROL
CN1
+4.9V IN
GROUND
PANNING CONT IN
TILTING CONT IN
NOT USED
REMOTE CONTROL CONNECTOR
1 PANNING CONT IN
2 TILTING CONT IN
3 +4.9V IN
4 GROUND
5 NOT USED
IC1(a),(d) RIGHT DETECT
IC1(c),(b) LIFT DETECT
IC2(c),(b) DOWN DETECT
IC2(a),(d) UP DETECT
IC3 PANNING CONTROL
IC4 TILTING CONTROL
Q1,Q2 SPEED CONT
Q3,Q4 SPEED CONT
VR1 PANNING SPEED SET
VR2 TILTING SPEED SET
CN2 1 +12V IN 2 GROUND
AC ADAPTOR IN CONNECTOR
SW105 OPERATION SWITCH
ON OFF
SWITCH BOARD
CN3
1 PANNING DRIVE OUT (LEFT)
2 NOT USED
3 PANNING DRIVE OUT (RIGHT)
4 NOT USED
SW101 LEFT LIMIT SWITCH
SW102 RIGHT LIMIT SWITCH
PAN MOTOR
CN4
1 TILTING DRIVE OUT (DOWN)
2 NOT USED
3 TILTING DRIVE OUT (UP)
4 NOT USED
SW103 UP LIMIT SWITCH
SW104 DOWN LIMIT SWITCH
TILT MOTOR
: Voltage
C
B
A
1
2
3
4
5

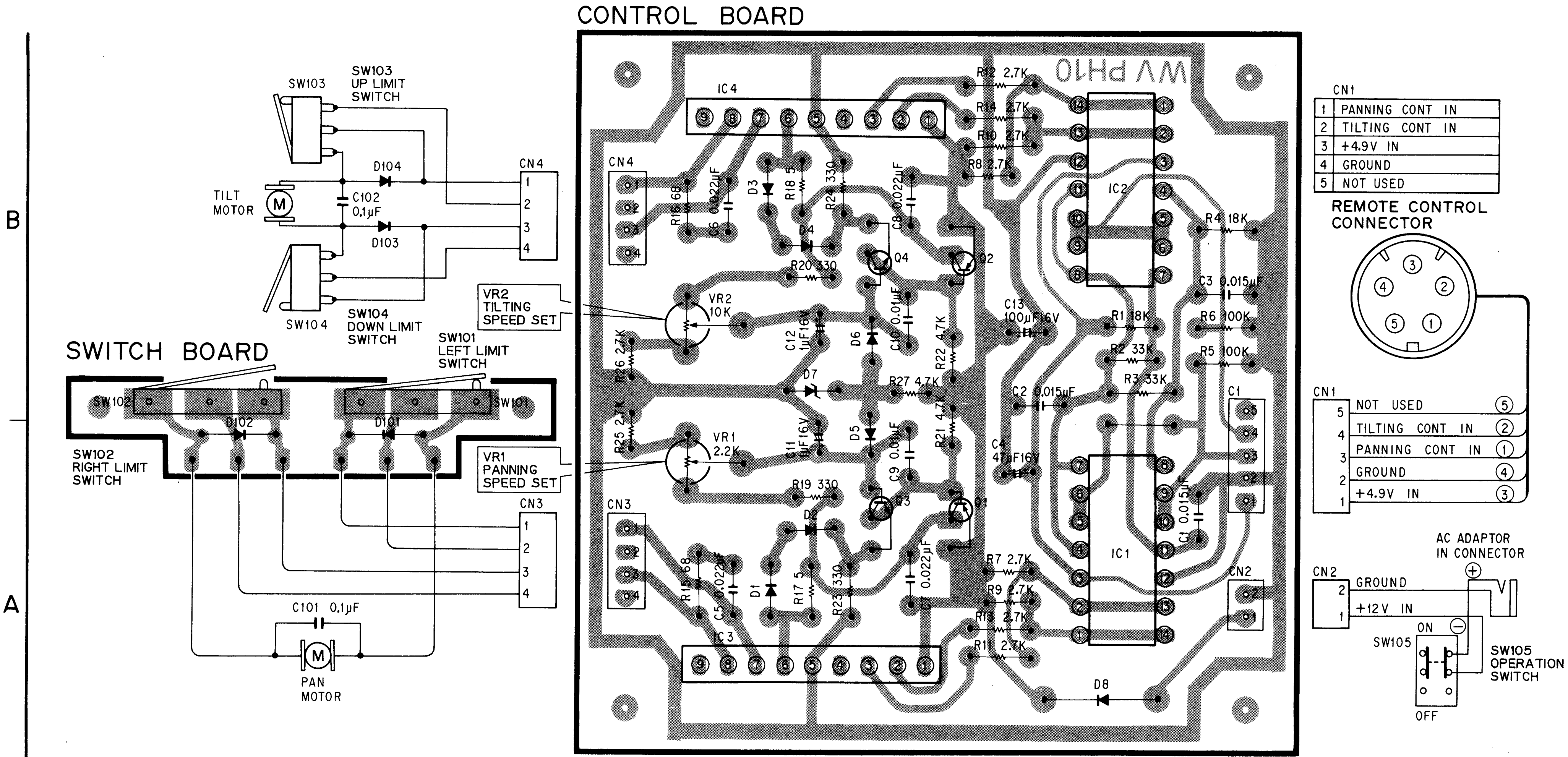
WV-PH10
CONTROL BOARD

IC1	LN2901
IC2	LN2901
IC3	TA7354
IC4	TA7354
Q1	2SB514
Q2	2SB514
Q3	2SC181
Q4	2SC181
D1	1S1588
D2	1S1588
D3	1S1588
D4	1S1588
D5	1S1588
D6	1S1588
D7	05Z3.6
D8	10D1
D101	10D1
D102	10D1
D103	10D1
D104	10D1

WV-Q39
BUFFER BOARD

IC1	AN78L
Q1	2SD636
Q2	2SD636
Q3	2SD636
Q4	2SD636

CONDUCTOR VIEW OF PAN/TILT HEAD WV-PH10


CONTROL BOARD
WV PH10
SWITCH BOARD
SW103 UP LIMIT SWITCH
SW104 DOWN LIMIT SWITCH
TILT MOTOR
C102 0.1μF
D103
D104
CN4
SW101 LEFT LIMIT SWITCH
SW102 RIGHT LIMIT SWITCH
D101
D102
CN3
C101 0.1μF
PAN MOTOR
VR2 TILTING SPEED SET
VR1 PANNING SPEED SET
IC1
IC2
IC3
IC4
CN1
1 PANNING CONT IN
2 TILTING CONT IN
3 +4.9V IN
4 GROUND
5 NOT USED
REMOTE CONTROL CONNECTOR
CN2 GROUND +12V IN
AC ADAPTOR IN CONNECTOR
SW105 OPERATION SWITCH
ON OFF
B
A
1
2
3
4

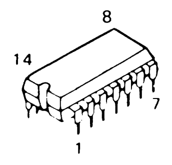
WV-PH10
CONTROL BO

IC1	LN
IC2	LN
IC3	TA
IC4	TA
Q1	2S
Q2	2S
Q3	2S
Q4	2S
D1	1S1
D2	1S1
D3	1S1
D4	1S1
D5	1S1
D6	1S1
D7	05Z
D8	10D
D101	10D
D102	10D
D103	10D
D104	10D

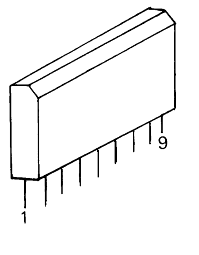
WV-Q39
BUFFER BOAR

IC	AN
Q1	2S
Q2	2S
Q3	2S
Q4	2S

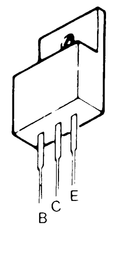
LN2901



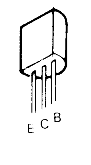
TA7354



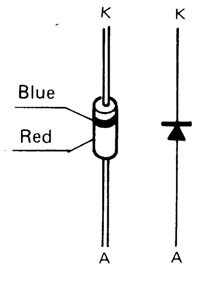
2SB514



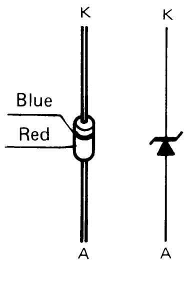
2SC1815



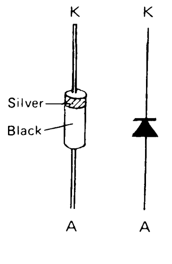
1S1588


K
K
Blue
Red
A
A

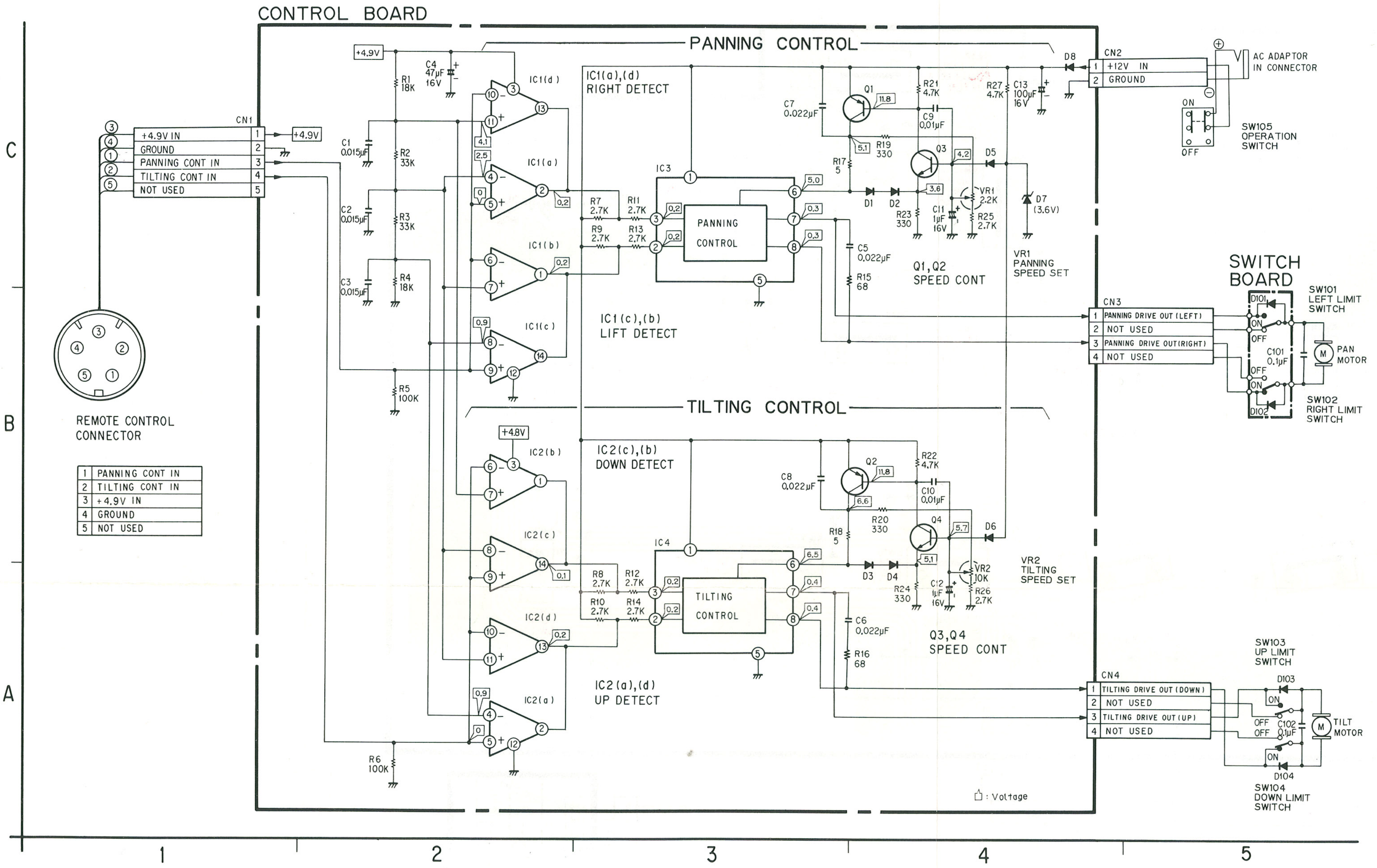
05Z3.6


K
K
Blue
Red
A
A

10D1


K
K
Silver
Black
A
A

SCHEMATIC DIAGRAM OF PAN/TILT HEAD WV-PH10


CONTROL BOARD
PANNING CONTROL
TILTING CONTROL
IC1(a),(d) RIGHT DETECT
IC1(c),(b) LIFT DETECT
IC2(c),(b) DOWN DETECT
IC2(a),(d) UP DETECT
IC3 PANNING CONTROL
IC4 TILTING CONTROL
Q1,Q2 SPEED CONT
Q3,Q4 SPEED CONT
VR1 PANNING SPEED SET
VR2 TILTING SPEED SET
CN1
+4.9V IN
GROUND
PANNING CONT IN
TILTING CONT IN
NOT USED
CN2
+12V IN
GROUND
AC ADAPTOR IN CONNECTOR
SW105 OPERATION SWITCH
CN3
PANNING DRIVE OUT (LEFT)
NOT USED
PANNING DRIVE OUT (RIGHT)
NOT USED
SWITCH BOARD
SW101 LEFT LIMIT SWITCH
SW102 RIGHT LIMIT SWITCH
PAN MOTOR
CN4
TILTING DRIVE OUT (DOWN)
NOT USED
TILTING DRIVE OUT (UP)
NOT USED
SW103 UP LIMIT SWITCH
SW104 DOWN LIMIT SWITCH
TILT MOTOR
REMOTE CONTROL CONNECTOR
1 PANNING CONT IN
2 TILTING CONT IN
3 +4.9V IN
4 GROUND
5 NOT USED
: Voltage
A
B
C
1
2
3
4
5

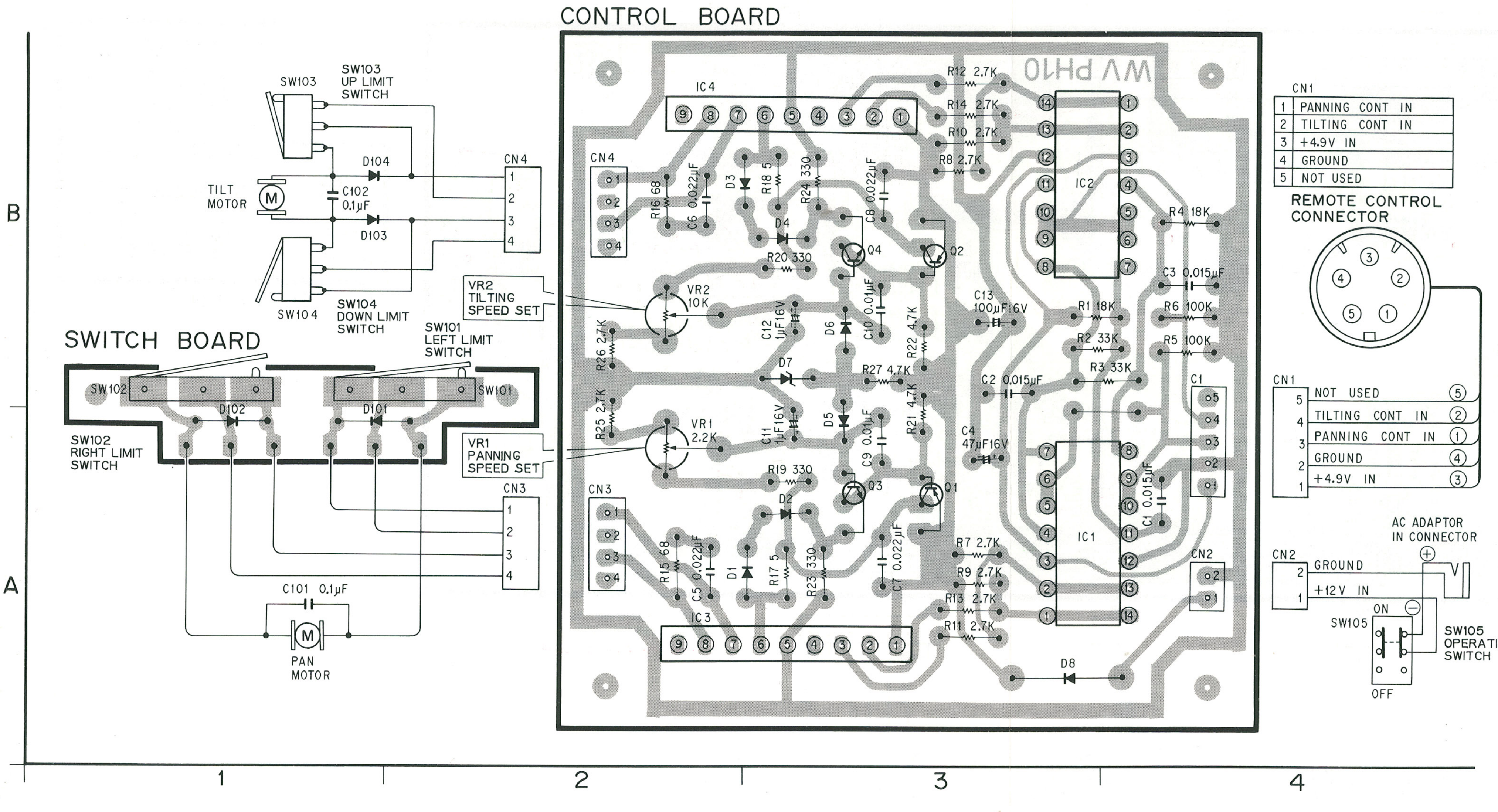
WV-PH10
CONTROL BOARD

IC1	LN2901
IC2	LN2901
IC3	TA7354
IC4	TA7354
Q1	2SB514
Q2	2SB514
Q3	2SC181
Q4	2SC181
D1	1S1588
D2	1S1588
D3	1S1588
D4	1S1588
D5	1S1588
D6	1S1588
D7	05Z3.6
D8	10D1
D101	10D1
D102	10D1
D103	10D1
D104	10D1

WV-Q39
BUFFER BOARD

IC1	AN78L
Q1	2SD63
Q2	2SD63
Q3	2SD63
Q4	2SD63

CONDUCTOR VIEW OF PAN/TILT HEAD WV-PH10


CONTROL BOARD
WV PH10
SWITCH BOARD
SW101 LEFT LIMIT SWITCH
SW102 RIGHT LIMIT SWITCH
SW103 UP LIMIT SWITCH
SW104 DOWN LIMIT SWITCH
TILT MOTOR
PAN MOTOR
VR1 PANNING SPEED SET
VR2 TILTING SPEED SET
CN1
1 PANNING CONT IN
2 TILTING CONT IN
3 +4.9V IN
4 GROUND
5 NOT USED
REMOTE CONTROL CONNECTOR
CN2
GROUND
+12V IN
AC ADAPTOR IN CONNECTOR
SW105 OPERATION SWITCH
ON
OFF
A
B
1
2
3
4

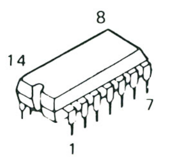
WV-PH10
CONTROL BOA

IC1	LN
IC2	LN
IC3	TA
IC4	TA
Q1	2S
Q2	2S
Q3	2S
Q4	2S
D1	1S1
D2	1S1
D3	1S1
D4	1S1
D5	1S1
D6	1S1
D7	05Z
D8	10D
D101	10D
D102	10D
D103	10D
D104	10D

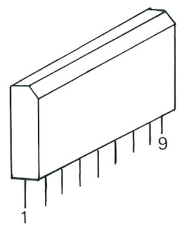
WV-Q39
BUFFER BOAR

IC	AN
Q1	2S
Q2	2S
Q3	2S
Q4	2S

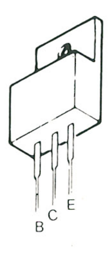
LN2901



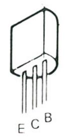
TA7354



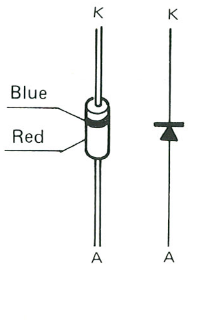
2SB514



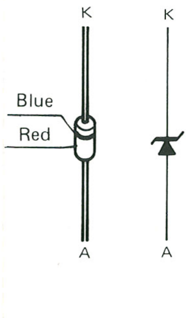
2SC1815



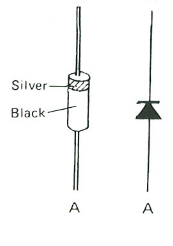
1S1588


K
K
Blue
Red
A
A

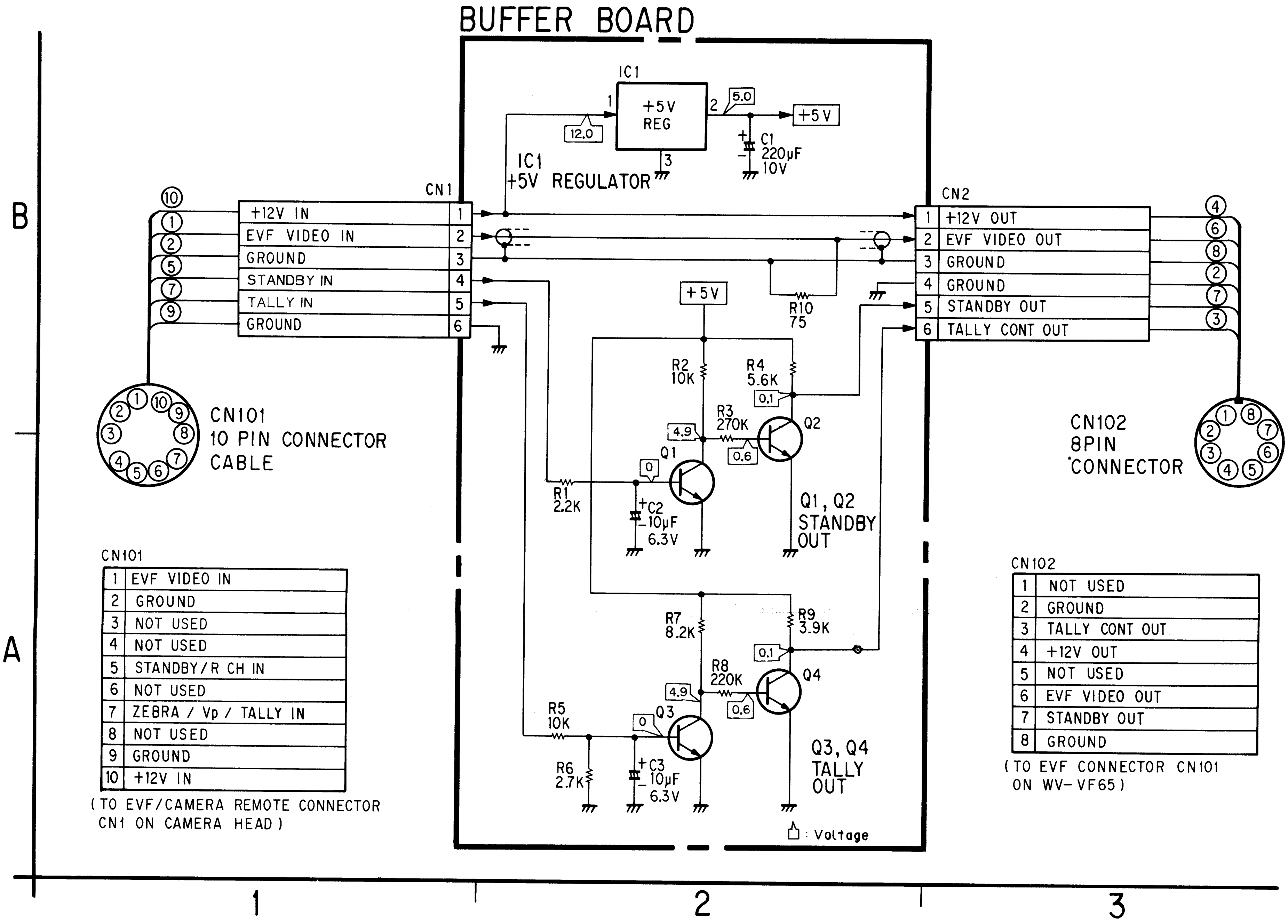
05Z3.6


K
K
Blue
Red
A
A

10D1


K
K
Silver
Black
A
A

SCHEMATIC DIAGRAM OF MOUNTING BRACKET WV-Q39


BUFFER BOARD
IC1
+5V REG
12.0
5.0
+5V
C1 220μF 10V
IC1 +5V REGULATOR
CN1
+12V IN
EVF VIDEO IN
GROUND
STANDBY IN
TALLY IN
GROUND
CN2
+12V OUT
EVF VIDEO OUT
GROUND
GROUND
STANDBY OUT
TALLY CONT OUT
R10 75
+5V
R2 10K
R4 5.6K
R3 270K
Q1
Q2
4.9
0.1
0.6
0
R1 2.2K
C2 10μF 6.3V
Q1, Q2 STANDBY OUT
R7 8.2K
R9 3.9K
R8 220K
Q3
Q4
R5 10K
R6 2.7K
C3 10μF 6.3V
Q3, Q4 TALLY OUT
: Voltage
CN101 10 PIN CONNECTOR CABLE
CN102 8PIN CONNECTOR
B
A
1
2
3

CN101

1	EVF VIDEO IN
2	GROUND
3	NOT USED
4	NOT USED
5	STANDBY/R CH IN
6	NOT USED
7	ZEBRA / Vp / TALLY IN
8	NOT USED
9	GROUND
10	+12V IN

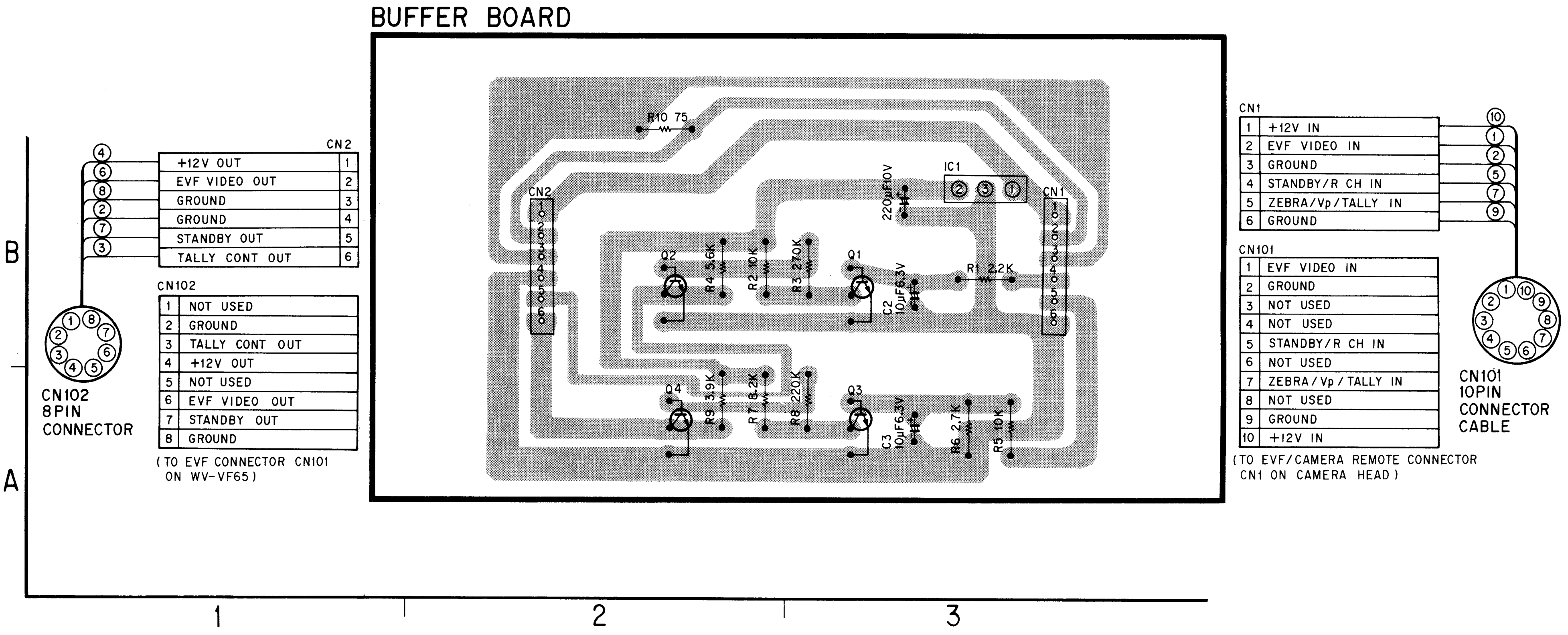
(TO EVF/CAMERA REMOTE CONNECTOR CN1 ON CAMERA HEAD)

CN102

1	NOT USED
2	GROUND
3	TALLY CONT OUT
4	+12V OUT
5	NOT USED
6	EVF VIDEO OUT
7	STANDBY OUT
8	GROUND

(TO EVF CONNECTOR CN101 ON WV-VF65)

CONDUCTOR VIEW OF MOUNTING BRACKET WV-Q39


BUFFER BOARD
R10 75
IC1
220μF10V
CN2
CN1
Q2
R4 5.6K
R2 10K
R3 270K
Q1
C2 10μF6.3V
R1 2.2K
Q4
R9 3.9K
R7 8.2K
R8 220K
Q3
C3 10μF6.3V
R6 2.7K
R5 10K
CN102 8PIN CONNECTOR
CN101 10PIN CONNECTOR CABLE
B
A
1
2
3

CN2

+12V OUT	1
EVF VIDEO OUT	2
GROUND	3
GROUND	4
STANDBY OUT	5
TALLY CONT OUT	6

CN102

1	NOT USED
2	GROUND
3	TALLY CONT OUT
4	+12V OUT
5	NOT USED
6	EVF VIDEO OUT
7	STANDBY OUT
8	GROUND

(TO EVF CONNECTOR CN101 ON WV-VF65)

CN1

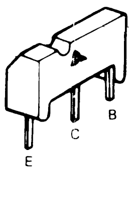
1	+12V IN
2	EVF VIDEO IN
3	GROUND
4	STANDBY/R CH IN
5	ZEBRA/Vp/TALLY IN
6	GROUND

CN101

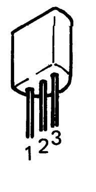
1	EVF VIDEO IN
2	GROUND
3	NOT USED
4	NOT USED
5	STANDBY/R CH IN
6	NOT USED
7	ZEBRA/Vp/TALLY IN
8	NOT USED
9	GROUND
10	+12V IN

(TO EVF/CAMERA REMOTE CONNECTOR CN1 ON CAMERA HEAD)

2SD636-QR



AN78L05



D

01	B2, C2
01	A2, B2
54	C3
54	A3
4	C4
4	B4
315	C4
315	B4
38	C4
38	C4
38	B4
38	B4
38	C4
38	B4
6	C4
	C4
	B5
	B5
	A5
	A5

L05	B2
36-QR	A2
36-QR	B2
36-QR	A2
36-QR	A2

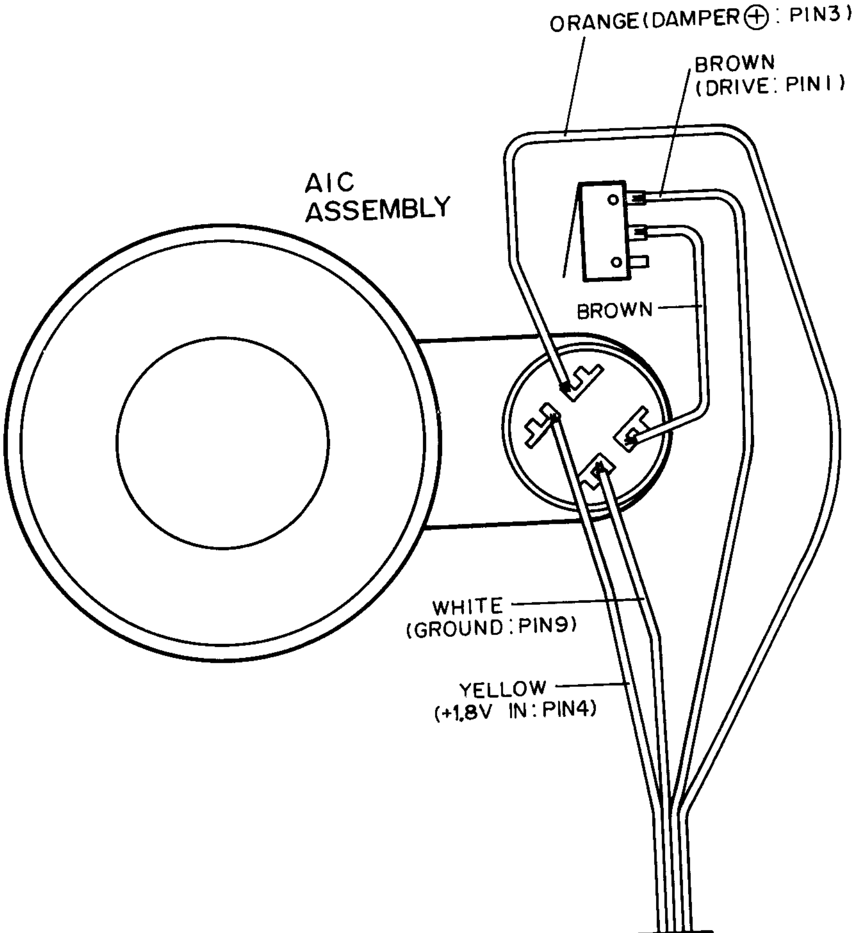
OARD

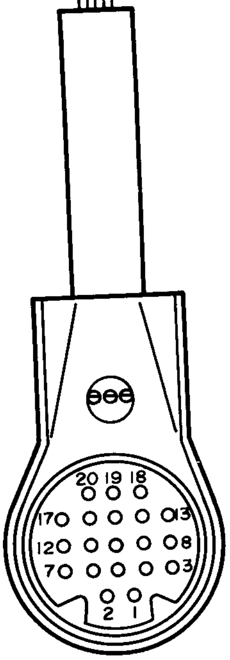
N2901	A3
N2901	B3
A7354	A3
A7354	B3
SB514	A3
SB514	B3
SC1815	A3
SC1815	B3
S1588	A3
S1588	A3
S1588	A3
S1588	B3
S1588	A3
S1588	B3
SZ3.6	B3
OD1	A3
OD1	A1
OD1	A1
OD1	B1
OD1	B1

RD

AN78L05	B2
SD636-QR	B3
SD636-QR	B2
SD636-QR	A3
SD636-QR	A2

WIRING DIAGRAM OF 12X AUTOMATIC IRIS STUDIO ZOOM LENS WV-LZ15/12


ORANGE (DAMPER ⊕ : PIN3)
BROWN (DRIVE: PIN1)
AIC ASSEMBLY
BROWN
WHITE (GROUND: PIN9)
YELLOW (+1.8V IN: PIN4)


20 19 18
17
13
12
8
7
3
2 1

LENS CONNECTOR

CN1 LENS CONNECTOR

1	AIC DRIVE IN
2	NOT USED
3	AIC DAMPER IN
4	+1.8V IN
5	NOT USED
6	NOT USED
7	NOT USED
8	NOT USED
9	GROUND
10	NOT USED
11	NOT USED
12	NOT USED
13	NOT USED
14	NOT USED
15	NOT USED
16	NOT USED
17	NOT USED
18	NOT USED
19	NOT USED
20	NOT USED

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "⚠" mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. Components identified by "o" mark are new parts used from this model.
3. Complete printed circuit board assembly is not available as replacement part.

REMOTE CONTROL UNIT WV-RC35

MISCELLANEOUS

SYMBOL NO.	PART NO.	DESCRIPTION
IC7	AN6541	IC
Q1 ⚠	2SB946-PQ	Transistor
D1	LN21RPH	Power Indicator
D2	YFLN31GCP	Tally Indicator
R1-4	ERD25FJ750	Carbon 75 ohms 1/4W
T1 ⚠	YFPHB66V042	Power Transformer
SW1 ⚠	EST1565T	Operation Switch
SW2	ESD391T	AC/DC Selection Switch
F10 ⚠	o XBA1F20NU100	Current Fuse 2A 125V
CN1	YWLJ194-1-1	Intercom Jack
CN2	XLR-4-32F512	EXT DC Connector
CN3	YFCNR-1204J	TALLY/INTERCOM Connecter
CN4,5	YFBNC-BRZ-1	Video Out Connector
CN6-9	YFRBS-11	GEN-LOCK IN/AUX IN Connector
CN10 ⚠	YWKP30SVT200	AC Power Cord for NTSC
⚠	YWHBS-3-08	AC Power Cord for WV-RC35B
⚠	YWC0309-08F	AC Power Cord for WV-RC35C, WV-RC35N
⚠	YWVM0309-08	AC Power Cord for WV-RC35G
⚠	YWKPGTSA-3	AC Power Cord for WV-RC35NA
CN11	o YFRC35-J12	14 pin Camera Cable Connector Assy
E10 ⚠	YWXN1157-03	Fuse Holder
M1	o YFV5WA0286A3	Panel for NTSC,WV-RC35BCG
	o YFV5WB0286A3	Panel for WV-RC35N,WV-RC35NA
M2	o YFV5WA0287A3	Rear Panel for WV-RC35USA,PAL
	o YFV5WB0287A3	Rear Panel for WV-RC35Canada
M4	o YFV5EA0387A2	Cover
M5	YFV5DA0005A4	Ornament
M6	o YFV2KA0147B2	Main Chassis
M7	o YFV2KA0148B3	Front Chassis
M8	YFV5RB0004A4	Knob(Red)
M9	YFV5RC0004A4	Knob(Blue)
M10	YFV6JA0036B4	Push Switch Button
M11	YWV3801HR01	Knob(Black)
M12	o YFV2CA0117A4	Hold Plate for Power Transformer
M13	o YFV2SA0254A4	Mounting Angle
M14	YWJ500PAM01	Mounting Angle A for Terminal
M15	YWJ500PAM02B	Mounting Angle B
M16	YWLSR-10	Rubber Foot
M20	YFV2HA0402A3	Shield Parts for Power Transformer
M21	o YFV4HA0011A4	Lock Shaft
M22 ⚠	o YFV2PA0167A4	Insulator Paper
M23	YWA620AER01	Insulator Washer(X2)
M24	YWJ500PWB01A	Cushion
M25	YFV3AA0014A4	Dust Proof Parts
M26 ⚠	YFV7MA0081A4	Safety Label
M27 ⚠	YFV7MA0180A4	Fuse Rated Label A for NTSC
⚠	YFV7MA0209A4	Fuse Rated Label A for PAL
M28 ⚠	YFV7MA0197A4	Safety Label for NTSC
	YFV7MA0015A4	Safety Label for PAL
M29 ⚠	YFV7MA0231A4	Caution Label
M30 ⚠	YFV7MB0099A4	Safety Label for WV-RC35USA,PAL
	YFV7MB0104A4	Safety Label for WV-RC35Canada
M31 ⚠	YFV7MB0103A4	Chock Label(X2)
M33 ⚠	o YFV7QA1079B4	Main Label for WV-RC35USA
⚠	o YFV7QA1080B4	Main Label for WV-RC35Canada
⚠	o YFV7QA1081B4	Main Label for WV-RC35B
⚠	o YFV7QA1082B4	Main Label for WV-RC35G
⚠	o YFV7QA1083B4	Main Label for WV-RC35C
⚠	o YFV7QA1084B4	Main Label for WV-RC35N
⚠	o YFV7QA1085B4	Main Label for WV-RC35NA
M34 ⚠	o YFV7MA0207A4	Fuse RatedLabel for B for PAL
M35 ⚠	YFV7MA0219A4	Fuse Rated Label C for PAL
M36 ⚠	YW-BCG-UR01B	Earth Label for PAL
M37 ⚠	YWS-CULRB03	Fuse Change Label for WV-RC35USA
	YWS-CCSRB01	Fuse Change Label for WV-RC35Canada
M40 ⚠	YWSR5N4	Cord Clamp for WV-RC35USA
M41 ⚠	YWSR6N3-4	Cord Clamp for WV-RC35Canada
	YWSR6W-1	Cord Clamp for PAL
M42	YWJ800PWB01	LED Holder

SYMBOL NO.	PART NO.	DESCRIPTION	
MAIN BOARD			
PCB1	o YFVKZRC35P1A	Printed Circuit Board Assy for NTSC	
	o YFVKZRC35E!A	Printed Circuit Board Assy for PAL	
IC1	MN1551CVT3S	IC	
IC2	MN4053BS	IC	
IC3	M5234FP	IC	
IC4	NJM3414M	IC	
IC5	NJM386M	IC	
IC6	MN1280T	IC	
Q1	2SD601-QR	Transistor	
Q2,3	2SC2404-CD	Transistor	
Q4	2SA1022-C	Transistor	
Q5	2SC2404-CD	Transistor	
Q6-10	2SA1022-C	Transistor	
Q11	2SC2404-CD	Transistor	
Q12,13	2SD601-QR	Transistor	
Q14	2SA1022-C	Transistor	
Q15	2SC2404-CD	Transistor	
Q16,17	2SB709-Q	Transistor	
Q18	2SD601-QR	Transistor	
Q19	2SB709-Q	Transistor	
Q20	2SD601-QR	Transistor	
Q21	2SA1022-C	Transistor	
Q22	2SC2404-CD	Transistor	
Q23-25	2SA1022-C	Transistor	
Q26	2SC2404-CD	Transistor	
Q27,28	2SD601-QR	Transistor	
Q29	2SA1022-C	Transistor	
Q30-32	2SC2404-CD	Transistor	
Q33,34	2SD601-QR	Transistor	
Q35	2SB709-Q	Transistor	
Q36-44	2SD601-QR	Transistor	
Q45	2SB709-Q	Transistor	
Q46	2SD601-QR	Transistor	
Q47	2SB709-Q	Transistor	
D1-8	MA151K	Diode	
R1	YF2116273JT	Carbon	27K ohms 1/16W
R2	YF2116103JT	Carbon	10K ohms 1/16W
R3	YF2116391JT	Carbon	390 ohms 1/16W
R4	YF2116751JT	Carbon	750 ohms 1/16W
R5	YF2116681JT	Carbon	680 ohms 1/16W
R6	YF2116271JT	Carbon	270 ohms 1/16W
R7	YF2116182JT	Carbon	1.8K ohms 1/16W
R8	YF2116560JT	Carbon	56 ohms 1/16W
R9	YF2116182JT	Carbon	1.8K ohms 1/16W
R10	YF2116222GT	Carbon	2.2K ohms 1/16W
R11	YF2116183JT	Carbon	18K ohms 1/16W
R12	YF2116272JT	Carbon	2.7K ohms 1/16W
R13	YF2116222GT	Carbon	2.2K ohms 1/16W
R14	YF2116682JT	Carbon	6.8K ohms 1/16W
R15	YF2116332JT	Carbon	3.3K ohms 1/16W
R16	YF2116560JT	Carbon	56 ohms 1/16W
R17	YF2116681JT	Carbon	680 ohms 1/16W
R18	YF2116560JT	Carbon	56 ohms 1/16W
R19	YF2116182JT	Carbon	1.8K ohms 1/16W
R20	YF2116332JT	Carbon	3.3K ohms 1/16W
R21	YF2116560JT	Carbon	56 ohms 1/16W
R22	YF2116392JT	Carbon	3.9K ohms 1/16W
R23	YF2116122JT	Carbon	1.2K ohms 1/16W
R24	YF2116560JT	Carbon	56 ohms 1/16W
R25	YF2116682JT	Carbon	6.8K ohms 1/16W
R26	YF2116303JT	Carbon	30K ohms 1/16W
R27	YF2116560JT	Carbon	56 ohms 1/16W
R28	YF2116682JT	Carbon	6.8K ohms 1/16W
R29	YF2116303JT	Carbon	30K ohms 1/16W
R30	YF2116622JT	Carbon	6.2K ohms 1/16W
R31	YF2116103JT	Carbon	10K ohms 1/16W
R32	YF2116153JT	Carbon	15K ohms 1/16W
R33	YF2116203JT	Carbon	20K ohms 1/16W
R34	YF2116153JT	Carbon	15K ohms 1/16W
R35	YF2116393JT	Carbon	39K ohms 1/16W
R36	YF2116153JT	Carbon	15K ohms 1/16W
R37-40	YF2116333GT	Carbon	33K ohms 1/16W
R41	YF2116560JT	Carbon	56 ohms 1/16W
R42	YF2116392JT	Carbon	3.9K ohms 1/16W
R43	YF2116122JT	Carbon	1.2K ohms 1/16W
R44	YF2116560JT	Carbon	56 ohms 1/16W
R45	YF2116512JT	Carbon	5.1K ohms 1/16W
R46	YF2116560JT	Carbon	56 ohms 1/16W
R47,48	YF2116750JT	Carbon	75 ohms 1/16W
R49	YF2116102GT	Carbon	1K ohms 1/16W
R50	YF2116105JT	Carbon	1M ohms 1/16W
R51	YF2116562JT	Carbon	5.6K ohms 1/16W
R52	YF2116223JT	Carbon	22K ohms 1/16W
R53	YF2116562JT	Carbon	5.6K ohms 1/16W
R54	YF2116183JT	Carbon	18K ohms 1/16W
R55	YF2116102GT	Carbon	1K ohms 1/16W
R56	YF2116222GT	Carbon	2.2K ohms 1/16W
R57	YF2116223JT	Carbon	22K ohms 1/16W
R58,59	YF2116103JT	Carbon	10K ohms 1/16W
R60	YF2116163JT	Carbon	16K ohms 1/16W
R61	YF2116682JT	Carbon	6.8K ohms 1/16W
R62	YF2116273JT	Carbon	27K ohms 1/16W
R63	YF2116103JT	Carbon	10K ohms 1/16W
R64	YF2116222GT	Carbon	2.2K ohms 1/16W
R65	YF2116682JT	Carbon	6.8K ohms 1/16W
R66	YF2116561JT	Carbon	560 ohms 1/16W
R67	YF2116682JT	Carbon	6.8K ohms 1/16W
R68	YF2116561JT	Carbon	560 ohms 1/16W
R69	YF2116562JT	Carbon	5.6K ohms 1/16W
R70	YF2116152JT	Carbon	1.5K ohms 1/16W
R71	YF2116332JT	Carbon	3.3K ohms 1/16W
R72	YF2116432JT	Carbon	4.3K ohms 1/16W
R73	YF2116560JT	Carbon	56 ohms 1/16W
R74	YF2116122JT	Carbon	1.2K ohms 1/16W
R75	YF2116333GT	Carbon	33K ohms 1/16W
R76	YF2116560JT	Carbon	56 ohms 1/16W
R77	YF2116682JT	Carbon	6.8K ohms 1/16W
R78	YF2116333GT	Carbon	33K ohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION	
R79	YF2116101JT	Carbon	100 ohms 1/16W
R80	YF2116562JT	Carbon	5.6K ohms 1/16W
R81	YF2116472JT	Carbon	4.7K ohms 1/16W
R82	YF2116243JT	Carbon	24K ohms 1/16W
R83	YF2116560JT	Carbon	56 ohms 1/16W
R84	YF2116333GT	Carbon	33K ohms 1/16W
R85	YF2116392JT	Carbon	3.9K ohms 1/16W
R86	YF2116222GT	Carbon	2.2K ohms 1/16W
R87	YF2116103JT	Carbon	10K ohms 1/16W
R88	YF2116101JT	Carbon	100 ohms 1/16W
R89	YF2116680JT	Carbon	68 ohms 1/16W
R90	YF2116750JT	Carbon	75 ohms 1/16W
R91	YF2116822JT	Carbon	8.2K ohms 1/16W
R92	YF2116123JT	Carbon	12K ohms 1/16W
R93,94	YF2116821GT	Carbon	820 ohms 1/16W
R95	YF2116101JT	Carbon	100 ohms 1/16W
R96	YF2116272JT	Carbon	2.7K ohms 1/16W
R97	YF2116561JT	Carbon	560 ohms 1/16W
R98	YF2116332JT	Carbon	3.3K ohms 1/16W
R99,100	YF2116560JT	Carbon	56 ohms 1/16W
R101	YF2116182JT	Carbon	1.8K ohms 1/16W
R102	YF2116122JT	Carbon	1.2K ohms 1/16W
R103	YF2116392JT	Carbon	3.9K ohms 1/16W
R104	YF2116560JT	Carbon	56 ohms 1/16W
R105	YF2116432JT	Carbon	4.3K ohms 1/16W
R106	YF2116392JT	Carbon	3.9K ohms 1/16W
R107	YF2116222GT	Carbon	2.2K ohms 1/16W
R108	YF2116103JT	Carbon	10K ohms 1/16W
R109	YF2116101JT	Carbon	100 ohms 1/16W
R110	YF2116680JT	Carbon	68 ohms 1/16W
R111	YF2116750JT	Carbon	75 ohms 1/16W
R114	YF2116473GT	Carbon	47K ohms 1/16W
R115	YF2116912JT	Carbon	9.1K ohms 1/16W
R116,117	YF2116472JT	Carbon	4.7K ohms 1/16W
R118	YF2116102GT	Carbon	1K ohms 1/16W
R119-121	YF2116473GT	Carbon	47K ohms 1/16W
R122	YF2116222GT	Carbon	2.2K ohms 1/16W
R123	YF2116183JT	Carbon	18K ohms 1/16W
R124	YF2116332JT	Carbon	3.3K ohms 1/16W
R125	YF2116222GT	Carbon	2.2K ohms 1/16W
R126	YF2116101JT	Carbon	100 ohms 1/16W
R127	YF2116201JT	Carbon	200 ohms 1/16W
R128	YF2116183JT	Carbon	18K ohms 1/16W
R129	YF2116332JT	Carbon	3.3K ohms 1/16W
R130	YF2116102GT	Carbon	1K ohms 1/16W
R131	YF2116101JT	Carbon	100 ohms 1/16W
R132	YF2116183JT	Carbon	18K ohms 1/16W
R133	YF2116201JT	Carbon	200 ohms 1/16W
R134	YF2116332JT	Carbon	3.3K ohms 1/16W
R135	YF2116102GT	Carbon	1K ohms 1/16W
R136	YF2116183JT	Carbon	18K ohms 1/16W
R137	YF2116332JT	Carbon	3.3K ohms 1/16W
R138	YF2116102GT	Carbon	1K ohms 1/16W
R139	YF2116101JT	Carbon	100 ohms 1/16W
R140	YF2116102GT	Carbon	1K ohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION	
R141	YF2116752JT	Carbon	7.5K ohms 1/16W
R142	YF2116102GT	Carbon	1K ohms 1/16W
R143	YF2116823JT	Carbon	82K ohms 1/16W
R144	YF2116560JT	Carbon	56 ohms 1/16W
R145	YF2116101JT	Carbon	100 ohms 1/16W
R146	YF2116104JT	Carbon	100K ohms 1/16W
R147	YF2116560JT	Carbon	56 ohms 1/16W
R149,150	YF2116473GT	Carbon	47K ohms 1/16W
R151	YF2116103JT	Carbon	10K ohms 1/16W
R152	YF2116473GT	Carbon	47K ohms 1/16W
R153	YF2116103JT	Carbon	10K ohms 1/16W
R154	YF2116473GT	Carbon	47K ohms 1/16W
R155	YF2116333GT	Carbon	33K ohms 1/16W
R156	YF2116562JT	Carbon	5.6K ohms 1/16W
R157	YF2116103JT	Carbon	10K ohms 1/16W
R158	YF2116561JT	Carbon	560 ohms 1/16W
R159	YF2116101JT	Carbon	100 ohms 1/16W
R160	YF2116750JT	Carbon	75 ohms 1/16W
R161	YF2116333GT	Carbon	33K ohms 1/16W
R162	YF2116562JT	Carbon	5.6K ohms 1/16W
R163	YF2116103JT	Carbon	10K ohms 1/16W
R164	YF2116561JT	Carbon	560 ohms 1/16W
R165	YF2116101JT	Carbon	100 ohms 1/16W
R166	YF2116750JT	Carbon	75 ohms 1/16W
R167	YF2116223JT	Carbon	22K ohms 1/16W
R168	YF2116333GT	Carbon	33K ohms 1/16W
R169,170	YF2116103JT	Carbon	10K ohms 1/16W
R171	YF2116122JT	Carbon	1.2K ohms 1/16W
R172	YF2116331JT	Carbon	330 ohms 1/16W
R173	YF2116562JT	Carbon	5.6K ohms 1/16W
R174	YF2116101JT	Carbon	100 ohms 1/16W
R175	YF2116332JT	Carbon	3.3K ohms 1/16W
R176	YF2116822JT	Carbon	8.2K ohms 1/16W
R177	YF2116103JT	Carbon	10K ohms 1/16W
R178	YF2116152JT	Carbon	1.5K ohms 1/16W
R179	YF2116750JT	Carbon	75 ohms 1/16W
R192,193	YF2116182JT	Carbon	1.8K ohms 1/16W
VR1	EVN8ACA00BE3	Variable Resistor	2.2K ohms
VR2	RK097115KB	Variable Resistor	5K ohms
Z1	YFRKM8LFW154	Block Resistor	
C1	ECEA1AKS470	Electrolytic	47 µF 10V
C2,3	ECEA0JKS101	Electrolytic	100µF 6.3V
C4	YF400100CHDT	Ceramic	10 pF
C5	YF400300CHJT	Ceramic	30 pF
C6	YF400560CHJT	Ceramic	56 pF
C7	YF400180CHJT	Ceramic	18 pF
C8	YF400220CHJT	Ceramic	22 pF
C9,10	YF400180CHJT	Ceramic	18 pF
C11	ECEA1CKS100	Electrolytic	10 µF 16V
C12	ECEA1AKS470	Electrolytic	47 µF 10V
C13,14	ECEA1ASS102	Electrolytic	1000µF 10V
C15	ECEA1AKS470	Electrolytic	47 µF 10V
C16	YF400101CHJT	Ceramic	100 pF
C17	YF426224FZS	Ceramic	0.22 µF 50V
C18	YF400680CHJT	Ceramic	68 pF CH
C19	YF400222XKT	Ceramic	2200pF

SYMBOL NO.	PART NO.	DESCRIPTION	
C20	ECEA1AKS470	Electrolytic	47 µF 10V
C21	YF400180CHJT	Ceramic	18 pF
C22	YF400820CHJT	Ceramic	82 pF
C23	ECEA0JKS101	Electrolytic	100µF 6.3V
C24	YF400220CHJT	Ceramic	22 pF
C25,26	YF400150CHJT	Ceramic	15 pF
C27	YF400100CHDT	Ceramic	10 pF
C28	YF400220CHJT	Ceramic	22 pF
C29	ECEA1CKS100	Electrolytic	10 µF 16V
C30	ECEA1AKS470	Electrolytic	47 µF 10V
C31	ECEA1AU471	Electrolytic	470 µF 10V
C32	ECEA1AKS470	Electrolytic	47 µF 10V
C33	YF400820CHJT	Ceramic	82 pF
C34	ECEA0JKS101	Electrolytic	100µF 6.3V
C35	YF400101CHJT	Ceramic	100 pF
C36	ECEA1CKS100	Electrolytic	10 µF 16V
C37	ECEA1AKS470	Electrolytic	47 µF 10V
C38	ECEA1AU471	Electrolytic	470 µF 10V
C39	ECEA1AKS470	Electrolytic	47 µF 10V
C40	ECEA1CKS470	Electrolytic	47 µF 16V
C41	ECEA1CKN100	Electrolytic	10 µF 16V
C42	YF400103XKT	Ceramic	0.01 µF
C43	ECEA1CKS100	Electrolytic	10 µF 16V
C44	ECEA1AU221	Electrolytic	220 µF 10V
C45	ECEA1CKN100	Electrolytic	10 µF 16V
C46	ECEA1CKS100	Electrolytic	10 µF 16V
C47	ECEA1AU221	Electrolytic	220 µF 10V
C48	ECEA1CKN100	Electrolytic	10 µF 16V
C49,50	ECEA1CKS100	Electrolytic	10 µF 16V
C51	ECEA1AKK100	Electrolytic	10 µF 10V
C52	YF400473FZT	Ceramic	0.047 µF
C53	ECEA1CU101	Electrolytic	100 µF 16V
C54	ECEA1HKSR22	Electrolytic	0.22 µF 50V
C55	YF400332XKT	Ceramic	3300 pF
C56,57	ECEA1AKS470	Electrolytic	47 µF 10V
C58	YF400473FZT	Ceramic	0.047 µF
C59	ECEA1AU101	Electrolytic	100 µF 10V
C60	ECEA1AKN470	Electrolytic	47 µF 10V
C61	ECEA1AU101	Electrolytic	100 µF 10V
C62	ECEA1AKS470	Electrolytic	47 µF 10V
C63	YF400010CHDT	Ceramic	1 pF
C64,65	ECEA1AU101	Electrolytic	100 µF 10V
C66	YF400010CHDT	Ceramic	1 pF
C71	ECEA1AKS470	Electrolytic	47 µF 10V
C72	ECEA1VKS4R7	Electrolytic	4.7µF 35V
L1-4	EL05SI8R2K	Coil	8.2µH
SW1	YFSBU1024	Rotary Switch	
X1	YFEF0-FC4004	Oscillator	
CF1	YFSTR4043	Filter for NTSC	
	YFSTR4044	Filter for PAL	
J148	YF21160R00T	Jumper Resistor	
CN1-JM	EMCS0850Z	5 pin Jack Male	
CN2-JM	EMCS1050Z	10 pin Jack Male	
CN3,4-JM	YFS7PS2T2EF	7 pin Jack Male	
CN5-JM	EMCS0350Z	3 pin Jack Male	

SYMBOL NO.	PART NO.	DESCRIPTION
CN6-11	EMCS0250Z	2 pin Jack Male
CN12	EMCS0352M	3 pin Jack Male
CN13	EMCS0450Z	4 pin Jack Male
CN14	EMCS0252M	2 pin Jack Male

POWER BOARD

SYMBOL NO.	PART NO.	DESCRIPTION	
PCB2	o YFVKZRC35P2A	Printed Circuit Board Assy for NTSC	
	o YFVKZRC35E2A	Printed Circuit Board Assy for PAL	
IC1 ⚠	NJM3524D	IC	
Q2 ⚠	2SC1384-QRS	Transistor	
Q3 ⚠	2SA684-QR	Transistor	
D1 ⚠	D5FB2052	Diode	
D2 ⚠	ESAB82-004	Diode	
D4 ⚠	RM4ZLFK1	Diode	
R1	ERD10TJ102	Carbon	1K ohms 1/8W
R2-4	ERD10TJ472	Carbon	4.7K ohms 1/8W
R6	ERD10TJ273	Carbon	27K ohms 1/8W
R7 ⚠	ERG2ANJ470	Metal	47 ohms 2W
R8 ⚠	ERG2ANJ102H	Metal	1K ohms 2W
R9 ⚠	ERG2ANJ621H	Metal	620 ohms 2W
VR1	EVN8ACA00BE3	Variable Resistor	2.2K ohms
C1	ECKD2H103KB2	Ceramic	0.01 µF 500V
C2	ECES1HU472R	Electrolytic	4700µF 50V
C3	ECEA1AK470	Electrolytic	47 µF 10V
C4	ECCF1H331JC	Ceramic	330 pF
C5	ECEA1HF101V	Electrolytic	100 µF 50V
C6	ECKW1H222KB5	Ceramic	2200 pF 50V
C7	ECEA1EK100	Electrolytic	10 µF 25V
C8	ECQM1H153JZ	Plastic	0.015 µF 50V
C9,10	ECET25R222SU	Electrolytic	2200 µF 25V
C12,13	ECKD2H103KB2	Ceramic	0.01 µF 100V
C14	ECEA1EK100	Electrolytic	10 µF 25V
C15	ECQM1H104JZ	Plastic	0.1 µF 50V
L1	YF15PF470K	Coil	47 µH
L2	ELC18E006	Coil	330 µH
L3	YF15PF470K	Coil	47 µH
F1 ⚠	YFSP73A	Current Fuse	3A 125V for NTSC
⚠	YFICPF75	Current Fuse	3.15A 250V for PAL
F2 ⚠	XBA1C30NU100	Current Fuse	3A 125V for NTSC
⚠	XBA2C31ET0A	Current Fuse	3.15A 250V for PAL
CN1,2-JM	EMCS0352M	3 pin Jack Male	
E2	YWSN5053	Fuse Holder	
M17	o YFV2HA0399A4	Shield Case	
M18	o YFV2HA0400A4	Shield Cover A	
M19	o YFV2HA0401A4	Shield Cover B	

CONTROL BOARD

SYMBOL NO.	PART NO.	DESCRIPTION
PCB3	o YFVKZRC35P3A	Printed Circuit Board Assy
D1-3	MA165	Diode
R1	ERD10TJ103	Carbon 10K ohms 1/8W
R2	ERD10TJ203	Carbon 20K ohms 1/8W
R3	ERD10TJ103	Carbon 10K ohms 1/8W
R4	ERD10TJ203	Carbon 20K ohms 1/8W
R7-10	YF2116681JT	Carbon 680 ohms 1/16W
R11	ERD10TJ161	Carbon 160 ohms.1/8W
R12	ERD10TJ221	Carbon 220 ohms 1/8W
VR1-4	YFRK12K11CC	Variable Resistor 10K ohms
VR5	YFRK12K1KBCC	Variable Resistor 1K ohms
VR6	EVJ1KAS10B13	Variable Resistor 1K ohms
VR7	EVJ1KAS10B14	Variable Resistor 10K ohms
SW1	YFSPH222A	Push Switch
SW3-6	YFSSA042L12	Slide Switch

ACCESSORY PARTS/PACKAGING PARTS

SYMBOL NO.	PART NO.	DESCRIPTION
CN50	o YFCNR-1204P	4 pin Connector
M51	o YFV8QA1045AN	Operating Instruction for WV-RC35USA
	o YFV8QA1046AN	Operating Instruction for WV-RC35Canada
	o YFV8QA1047AN	Operating Instruction for WV-RC35BCG
	o YFV8QA1050AN	Operating Instruction for WV-RC35N
	o YFV8QA1090AN	Operating Instruction for WV-RC35NA
M52	VQA0120-3	Warranty Card for WV-RC35USA
	VQA0054-5	Warranty Card for WV-RC35Canada
	19998700419	Warranty Card for WV-RC35G
	YFV8UA0004A4	Warranty Card for WV-RC35NA
M53	YWV22XPRB99K	Service Center List for WV-RC35USA
M54 ⚠	YFV8SA0009CN	Safety Guide for WV-RC35USA
M55	XZB26X40C05	Polyethylene Bag for Printed
M56	XZB35X50C05	Polyethylene Bag for RCU
M57	YWT20X35C03	Polyethylene Bag for Connector
M60	o YFV9CA0852AN	Packaging for WV-RC35USA, WV-RC35N,WV-RC35NA
	o YFV9CA0903AN	Packaging for WV-RC35Canada
	o YFV9CA0904AN	Packaging for WV-RC35BCG
M61	YWS-RB032	Packing Label for WV-RC35USA

RCU ADAPTOR WV-AD37

SYMBOL NO.	PART NO.	DESCRIPTION
Q21	2SC1398-QR	Transistor
SW1	YFSSB022L6NR	Power Selection Switch
CN1,2	YFBNC-BRZ-1	BNC Connector
CN3	YWLJ194-1-1	Intercam Jack
CN4	YFAD37RCU14P	14Pin RCU Connector
CN5	YFXLR432F512	4Pin External/DC Input Connector
M1	o YFV5EA0379A1	Cover
M2	o YFV5WA0281A4	Right Side Panel
M3	o YFV5WA0279A4	Panel-1
M4	o YFV5WA0280A4	Panel-2
M5 ⚠	o YFV7QA1075A4	Main Label for NTSC
⚠	o YFV7QA1102A4	Main Label for WV-AD37E
⚠	o YFV7QA1103A4	Main Label for WV-AD37N
M6 ⚠	o YFV7MA0106A4	Caution Label for NTSC
⚠	o YFV7MA0099A4	Caution Label for PAL
M7 ⚠	o YFV7SA0169B4	Switch Label
M8 ⚠	o YFV7MA0162A4	Fuse Label for NTSC
	o YFV7MA0219A4	Fuse Label for PAL
M9 ⚠	o YWS-CCSRB01	Fuse Change Label
M10	o YFV3CA0071A4	Mounting Angle for Intercom Jack
M11	o YFV2KA0145A3	Connector Chassis
M12	o YFV2SA0251A4	Mounting Angle
M13	o YFV5RA0048A4	Intercom Lebel Knob
M14	o YFV7MA0103A4	Chock Label for NTSC
M15	o YFV5EA0383A2	Mounting Base
M16	o YFV6JA0012A4	Button
M17	o YFV2CA0114A4	Hold Plate
M18	o YFV6GA0049A4	Mounting Plate
M19	o YFV6GA0050A4	Blank Plate
M20	o YFV4RA0009A4	Lock Lever
M21	o YFV4JA0084A4	Spring-A
M22	o YFV4JA0130A4	Spring Plate
M23	o YFV4JA0131A4	Spring-B
M24	o YFV5VA0045A4	Pad
M25	o YFV2EA0045A4	Mounting Guide for Connector
M26	o YFV5EA0406A4	Stopper Pin
M27	o YFV2EA0046A4	Mounting Plate

MAIN BOARD

SYMBOL NO.	PART NO.	DESCRIPTION
PCB1-1	o YFVKBAD37P1A	Printed Circuit Board Assy for NTSC
	o YFVKBAD37E1A	Printed Circuit Board Assy for PAL
IC3	MN4053BS	IC
IC4	M5234FP	IC
IC5	NJM3414M	IC
IC101	MN4011BS	IC
IC102	MN4516BS	IC
IC103	NJM4560M	IC
IC104	NJM3414M	IC
IC105	MN4053BS	IC
IC106	AN2020S	IC
Q1	2SC2404-CD	Transistor

SYMBOL NO.	PART NO.	DESCRIPTION	
Q2-4	2SD601-QR	Transistor	
Q5	2SC2404-CD	Transistor	
Q6	2SB709-Q	Transistor	
Q7-9	2SC2404-CD	Transistor	
Q18	2SB709-Q	Transistor	
Q19	2SD601-QR	Transistor	
Q20,101	2SB709-Q	Transistor	
Q102,103	2SB709-Q	Transistor	
Q104	2SD601-QR	Transistor	
Q105-109	2SC2404-CD	Transistor	
Q110-115	2SD601-QR	Transistor	
Q116-119	2SC2404-CD	Transistor	
Q120	2SB709-Q	Transistor	
Q121,122	2SC2404-CD	Transistor	
Q123,124	2SC2404-CD	Transistor for PAL	
Q125	2SD601-QR	Transistor for PAL	
Q126	2SB709-Q	Transistor	
Q127,128	2SD601-QR	Transistor	
Q129	2SB709-Q	Transistor	
Q130	2SC2404-CD	Transistor	
Q131-133	2SD601-QR	Transistor	
Q134	2SB709-Q	Transistor	
Q135	2SD601-QR	Transistor	
R1	YF2116153JT	Carbon	15K ohms 1/16W
R2	YF2116562JT	Carbon	5.6K ohms 1/16W
R3	YF2116222GT	Carbon	2.2K ohms 1/16W
R4	YF2116102GT	Carbon	1K ohms 1/16W
R5	YF2116332JT	Carbon	3.3K ohms 1/16W
R6,7	YF2116272JT	Carbon	2.7K ohms 1/16W
R8	YF2116105JT	Carbon	1M ohms 1/16W
R9	YF2116102GT	Carbon	1K ohms 1/16W
R10	YF2116223JT	Carbon	22K ohms 1/16W
R11	YF2116332JT	Carbon	3.3K ohms 1/16W
R12	YF2116103JT	Carbon	10K ohms 1/16W
R13,14	YF2116222GT	Carbon	2.2K ohms 1/16W
R15,16	YF2116102GT	Carbon	1K ohms 1/16W
R17	YF2116101JT	Carbon	100 ohms 1/16W
R18	YF2116103JT	Carbon	10K ohms 1/16W
R19,20	YF2116102GT	Carbon	1K ohms 1/16W
R21	YF2116103JT	Carbon	10K ohms 1/16W
R53	YF2116203JT	Carbon	20K ohms 1/16W
R54,55	YF2116103JT	Carbon	10K ohms 1/16W
R56	YF2116203JT	Carbon	20K ohms 1/16W
R57	YF2116222GT	Carbon	2.2K ohms 1/16W
R58	YF2116103JT	Carbon	10K ohms 1/16W
R59	YF2116562JT	Carbon	5.6K ohms 1/16W
R60	YF2116302JT	Carbon	3K ohms 1/16W
R61	YF2116332JT	Carbon	3.3K ohms 1/16W
R62	YF2116562JT	Carbon	5.6K ohms 1/16W
R63	YF2116392JT	Carbon	3.9K ohms 1/16W
R64	YF2116102GT	Carbon	1K ohms 1/16W
R65	YF2116183JT	Carbon	18K ohms 1/16W
R66	YF2116562JT	Carbon	5.6K ohms 1/16W
R67	YF2116392JT	Carbon	3.9K ohms 1/16W
R68,69	YF2116682JT	Carbon	6.8K ohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION	
R70,71	YF2116103JT	Carbon	10K ohms 1/16W
R72	YF2116622JT	Carbon	6.2K ohms 1/16W
R73,74	YF2116822JT	Carbon	8.2K ohms 1/16W
R75	YF2116332JT	Carbon	3.3K ohms 1/16W
R76	YF2116102GT	Carbon	1K ohms 1/16W
R77	YF2116103JT	Carbon	10K ohms 1/16W
R78	YF2116223JT	Carbon	22K ohms 1/16W
R79	YF2116681JT	Carbon	680 ohms 1/16W
R80,81	YF2116103JT	Carbon	10K ohms 1/16W
R82	YF2116102GT	Carbon	1K ohms 1/16W
R83	YF2116202JT	Carbon	2K ohms 1/16W
R84	YF2116750JT	Carbon	75 ohms 1/16W
R85	YF2116682JT	Carbon	6.8K ohms 1/16W
R86	YF2116103JT	Carbon	10K ohms 1/16W
R87	YF2116222GT	Carbon	2.2K ohms 1/16W
R88	YF2116332JT	Carbon	3.3K ohms 1/16W
R89	YF2116750JT	Carbon	75 ohms 1/16W
R90	YF2116104JT	Carbon	100K ohms 1/16W
R98	YF2116100JT	Carbon	10 ohms 1/16W
R99	YF2116332JT	Carbon	3.3K ohms 1/16W
R100	YF2116123JT	Carbon	12K ohms 1/16W
R101	YF2116222GT	Carbon	2.2K ohms 1/16W
R102,103	YF2116183JT	Carbon	18K ohms 1/16W
R104-106	YF2116223JT	Carbon	22K ohms 1/16W
R107-109	YF2116272JT	Carbon	2.7K ohms 1/16W
R110	YF2116182JT	Carbon	1.8K ohms 1/16W
R111	YF2116221JT	Carbon	220 ohms 1/16W
R112,113	YF2116132JT	Carbon	1.3K ohms 1/16W
R114	YF2116271JT	Carbon	270 ohms 1/16W
R115	YF2116221JT	Carbon	220 ohms 1/16W
R116	YF2116392JT	Carbon	3.9K ohms 1/16W
R117	YF2116272JT	Carbon	2.7K ohms 1/16W
R118	YF2116562JT	Carbon	5.6K ohms 1/16W
R119	YF2116123JT	Carbon	12K ohms 1/16W
R120	YF2116103JT	Carbon	10K ohms 1/16W
R121	YF2116393JT	Carbon	39K ohms 1/16W for NTSC
	YF2116683JT	Carbon	68K ohms 1/16W for PAL
R122	YF2116152JT	Carbon	1.5K ohms 1/16W
R123-125	YF2116103JT	Carbon	10K ohms 1/16W
R126	YF2116272JT	Carbon	2.7K ohms 1/16W
R127	YF2116222GT	Carbon	2.2K ohms 1/16W
R128,129	YF2116102GT	Carbon	1K ohms 1/16W
R130	YF2116333GT	Carbon	33K ohms 1/16W
R131	YF2116122JT	Carbon	1.2K ohms 1/16W
R132	YF2116182JT	Carbon	1.8K ohms 1/16W
R133	YF2116102GT	Carbon	1K ohms 1/16W
R134	YF2116183JT	Carbon	18K ohms 1/16W
R135	YF2116112JT	Carbon	1.1K ohms 1/16W
R136	YF2116682JT	Carbon	6.8K ohms 1/16W
R137	YF2116221JT	Carbon	220 ohms 1/16W
R138	YF2116473GT	Carbon	47K ohms 1/16W for NTSC
R139	YF2116821GT	Carbon	820 ohms 1/16W
R140	YF2116122JT	Carbon	1.2K ohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION	
R141	YF2116153JT	Carbon	15K ohms 1/16W
R142	YF2116392JT	Carbon	3.9K ohms 1/16W
R143	YF2116512JT	Carbon	5.1K ohms 1/16W
R144	YF2116122JT	Carbon	1.2K ohms 1/16W
R145,146	YF2116101JT	Carbon	100 ohms 1/16W
R147	YF2116333GT	Carbon	33K ohms 1/16W
R148	YF2116473GT	Carbon	47K ohms 1/16W
R149	YF2116750JT	Carbon	75 ohms 1/16W
R150	YF2116333GT	Carbon	33K ohms 1/16W
R151	YF2116151JT	Carbon	150 ohms 1/16W
R152	YF2116153JT	Carbon	15K ohms 1/16W
R153	YF2116331JT	Carbon	330 ohms 1/16W
R154	YF2116272JT	Carbon	2.7K ohms 1/16W
R155	YF2116102GT	Carbon	1K ohms 1/16W
R156	YF2116332JT	Carbon	3.3K ohms 1/16W
R157	YF2116103JT	Carbon	10K ohms 1/16W
R158	YF2116223JT	Carbon	22K ohms 1/16W
R159	YF2116472JT	Carbon	4.7K ohms 1/16W
R160	YF2116101JT	Carbon	100 ohms 1/16W
R161	YF2116123JT	Carbon	12K ohms 1/16W
R162	YF2116103JT	Carbon	10K ohms 1/16W
R163,165	YF2116102GT	Carbon	1K ohms 1/16W
R164	YF2116104JT	Carbon	100K ohms 1/16W
R165	YF2116102JT	Carbon	1K ohms 1/16W
R166	YF2116751JT	Carbon	750 ohms 1/16W for NTSC
	YF2116821JT	Carbon	820 ohms 1/16W for PAL
R167	YF2116102GT	Carbon	1K ohms 1/16W
R168	YF21160R00T	Carbon	0 ohms for NTSC
	YF2116222JT	Carbon	2.2K ohms 1/16W for PAL
R169	YF2116332JT	Carbon	3.3K ohms 1/16W
R170	YF2116103JT	Carbon	10K ohms 1/16W
R171	YF2116183JT	Carbon	18K ohms 1/16W
R172	YF2116822JT	Carbon	8.2K ohms 1/16W
R173	YF2116182JT	Carbon	1.8K ohms 1/16W
R174	YF2116271JT	Carbon	270 ohms 1/16W
R175	YF2116330JT	Carbon	33 ohms 1/16W
R176-178	YF2116102GT	Carbon	1K ohms 1/16W
R179	YF2116330JT	Carbon	33 ohms 1/16W for PAL
R180	YF2116102GT	Carbon	1K ohms 1/16W
R181-183	YF2116102GT	Carbon	1K ohms 1/16W for PAL
R184	YF2116330JT	Carbon	33 ohms 1/16W for PAL
R185 for PAL	YF2116821GT	Carbon	820 ohms 1/16W
R186	YF2116102GT	Carbon	1K ohms 1/16W for PAL
R187	YF2116332JT	Carbon	3.3K ohms 1/16W for PAL
R188	YF2116103JT	Carbon	10K ohms 1/16W
R189	YF2116392JT	Carbon	3.9K ohms 1/16W
R190	YF2116392JT	Carbon	3.9K ohms 1/16W for NTSC
	YF2116562JT	Carbon	5.6K ohms 1/16W for PAL

SYMBOL NO.	PART NO.	DESCRIPTION	
R191	YF2116392JT	Carbon	3.9K ohms 1/16W for NTSC
	YF2116391JT	Carbon	390 ohms 1/16W for PAL
R192,193	YF2116102GT	Carbon	1K ohms 1/16W
R194	YF2116222GT	Carbon	2.2K ohms 1/16W for NTSC
	YF2116821GT	Carbon	820 ohms 1/16W for PAL
R195	YF2116103JT	Carbon	10K ohms 1/16W
R196	YF2116562JT	Carbon	5.6K ohms 1/16W
R197	YF2116223JT	Carbon	22K ohms 1/16W
R198	YF2116272JT	Carbon	2.7K ohms 1/16W
R199	YF2116104JT	Carbon	100K ohms 1/16W
R200,201	YF2116562JT	Carbon	5.6K ohms 1/16W
R202	YF2116102GT	Carbon	1K ohms 1/16W
R203	YF2116104JT	Carbon	100K ohms 1/16W
R204	YF2116222GT	Carbon	2.2K ohms 1/16W
R205	YF2116821GT	Carbon	820ohms 1/16W
R206	YF2116511JT	Carbon	510ohms 1/16W
R207	YF2116561JT	Carbon	560ohms 1/16W
R208	YF2116102GT	Carbon	1K ohms 1/16W
R209	YF2116750JT	Carbon	75 ohms 1/16W
R210	YF2116333GT	Carbon	33Kohms 1/16W
R211	YF2116153JT	Carbon	15Kohms 1/16W
R212	YF2116151JT	Carbon	150ohms 1/16W
R213	YF2116331JT	Carbon	330ohms 1/16W
R214	YF2116272JT	Carbon	2.7Kohms 1/16W
R215	YF2116102GT	Carbon	1K ohms 1/16W
R216	YF2116332JT	Carbon	3.3Kohms 1/16W
R217	YF2116103JT	Carbon	10Kohms 1/16W
R218	YF2116223JT	Carbon	22Kohms 1/16W
R219	YF2116472JT	Carbon	4.7Kohms 1/16W
R220	YF2116470JT	Carbon	47 ohms 1/16W
R221	YF2116181JT	Carbon	180 ohms 1/16W
R222	YF2116103JT	Carbon	10Kohms 1/16W
R223	YF2116223JT	Carbon	22K ohms 1/16W
R224	YF2116104JT	Carbon	100K ohms 1/16W
R225	LP161KGT57	Carbon	1K ohms 1/16W
R226	YF2116102GT	Carbon	1K ohms 1/16WR
R230	YF2116102GT	Carbon	1K ohms 1/16W
R231	YF2116103JT	Carbon	10K ohms 1/16W
R232	YF2116222GT	Carbon	2.2K ohms 1/16W for NTSC
	YF21160R00	Jumper Rasistor	for PAL
R233	YF2116223GT	Carbon	22K ohms 1/16W
R234	YF2116181JT	Carbon	180 ohms 1/16W
R237	YF2116124JT	Carbon	120Kohms 1/16W for PAL
R238	YF2116243JT	Carbon	24K ohms 1/16W for PAL
VR1	YF6M2L10KB	Variable Resistor	10K ohms
VR2	YF6M2L1KB	Variable Resistor	1K ohms
VR101	EVM13SW00B14	Variable Resistor	10K ohms
VR102	EVM13SW00BE2	Variable Resistor	220 ohms
VR103	EVM13SW00BQ2	Variable Rasistor	470 ohms for PAL

SYMBOL NO.	PART NO.	DESCRIPTION	
VR104	EVM13SW00BC3	Variable Resistor	1.5K ohms
VR105	EVM13SW00BE3	Variable Resistor	2.2K ohms
VR106,107	EVM13SW00B14	Variable Resistor	10K ohms
VR108	EVM13SW00BY2	Variable Resistor	330 ohms
VR109	EVM13SW00BC3	Variable Resistor	1.5K ohms
VR111	EVM13SW00BE2	Variable Resistor	220 ohms
C1	ECEA0JKS470	Electrolytic	47 µF 6.3V
C2	YF400390CHJT	Ceramic	39 pF
C3	YF426224FZS	Ceramic	0.22 µF 50V
C4	YF400101CHJT	Ceramic	100 pF
C5	YF400680CHJT	Ceramic	68 pF
C6	YF400101CHJT	Ceramic	100 pF
C7,8	YF400103FZT	Ceramic	0.01 µF
C21	ECEA1AKS470	Electrolytic	47 µF 10V
C23	ECEA0JKS470	Electrolytic	47 µF 6.3V
C24,25	ECEA1CKS100	Electrolytic	10 µF 16V
C26	ECEA1AKS470	Electrolytic	47 µF 10V
C27	ECEA0JKS101	Electrolytic	100µF 6.3V
C28	ECEA1AKS470	Electrolytic	47 µF 10V
C30	ECEA0JKS470	Electrolytic	47 µF 6.3V
C101	YF400121CHJT	Ceramic	120 pF
C102,103	YF400270CHJT	Ceramic	27 pF
C104	ECEA0JKS470	Electrolytic	47 µF 6.3V
C105	ECEA1AKS470	Electrolytic	47 µF 10V
C106	YF400270CHJT	Ceramic	27 pF
C107,108	ECEA1CKS100	Electrolytic	10 µF 16V
C109,110	YF400103XKT	Ceramic	0.01 µF
C111-114	ECEA1AKS470	Electrolytic	47 µF 10V
C115	ECEA1CKS100	Electrolytic	10 µF 16V
C116	ECEA1AKS470	Electrolytic	47 µF 10V
C117,118	ECEA1CKS100	Electrolytic	10 µF 16V
C119	YF400680CHJT	Ceramic	68 pF
C120	YF400103XKT	Ceramic	0.01 µF
C121	YF400560CHJT	Ceramic	56 pF
C122	YF400150CHJT	Ceramic	15 pF for NTSC
	YF400050CHDT	Ceramic	5 PF for PAL
C123	YF400103XKT	Ceramic	0.01 µF
C124-126	YF400104FZT	Ceramic	0.1 µF
C127	YF400220CHJT	Ceramic	22 pF for NTSC
	YF400120CHJT	Ceramic	12 pF for PAL
C128	YF400050CHDT	Ceramic	5 pF for PAL
C129	YF400104FZT	Ceramic	0.1 µF forPAL
C130	YF400104FZT	Ceramic	0.1 µF
C131	ECEA0JKS470	Electrolytic	47 µF 6.3V
C132	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C133,134	ECEA1CKS100	Electrolytic	10 µF 16V
C135	YF400030CHDT	Ceramic	3 pF
C136	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C137	YF400104FZT	Ceramic	0.1 µF
C138-140	YF400103XKT	Ceramic	0.01 µF
C141	ECEA1AKS470	Electrolytic	47 µF 10V
C142	YF400103XKT	Ceramic	0.01 µF
C143	ECEA1CKS100	Electrolytic	10 µF 16V
C144	YF400511CHJT	Ceramic	510pF
C145,146	ECEA1CKS100	Electrolytic	10 µF 16V
C147	YF400680CHJT	Ceramic	68 pF CH
C148	ECEA0JKS470	Electrolytic	47 µF 6.3V
C149	ECEA1AKS470	Electrolytic	47 µF 10V
C150	YF400511CHJT	Ceramic	510 pF
C160	ECEA1AKS470	Electrolytic	47 uF 10V
C162	YF400104FZT	Ceramic	0.1 µF
C163	ECEA1AKS470	Electrolytic	47 µF 10V for PAL
CT1	ECRHA020D11	Trimmer Capacitor	20 PH
CT2	ECRHA020D11	Trimmer Capacitor	20 PH for PAL
L1,2	NL32T8R2K	Coil	8.2µH
L101-103	NL32T8R2K	Coil	8.2µH
SW1,2	YFSSS212YK	Slide Switch	
CF1	YFSTR4043	Filter for NTSC	
	YFSTR4044	Filter.for PAL	
CF4	YFT45P3R58	Filter for NTSC	
	YFT45P4R43	Filter for PAL	
CF101,102	YFSTR4045	Filter for NTSC	
	YFSTR4046	Filter for PAL	
F1 ⚠	YFSP510NM0	Current Fuse	1A
J1,10,11	YF21160R00T	Jumper Resistor	
J13,14	YF21160R00T	Jumper Rasistor	
CN1-JM	EMCS0650Z	6 pin Jack Male	
CN2-JM	EMCS0950Z	9 pin Jack Male	
CN3-JM	EMCS0350Z	5 pin Jack Male	
CN4-JM	EMCS0650Z	6 pin Jack Male	
CN5-JM	EMCS0350Z	3 pin Jack Male	
CN6-8-JM	EMCS0250Z	2 pin Jack Male	
CN9,10-JF	YFFPC11SS1T1	11 pin Jack Female	
CN11,12-JM	YFS7PS2T2EF	7 pin Jack Male	

MAIN BOARD

SYMBOL NO.	PART NO.	DESCRIPTION	
PCB1-2	o YFVKCAD37P1A	Printed Circuit Board Assy for NTSC	
	o YFVKCAD37E1A	Printed Circuit Board Assy for PAL	
IC1	YFNJM1496M	IC	
IC2	MN74HC221S	IC	
Q10,11	2SC2404-CD	Transistor	
Q12	2SA1022-CD	Transistor	
Q13	2SD601-QR	Transistor	
Q14-17	2SC2404-CD	Transistor	
Q23	2SC2404-CD	Transistor	
R22	YF2116272JT	Carbon	2.7K ohms 1/16W
R23	YF2116123JT	Carbon	12K ohms 1/16W
R24	YF2116102GT	Carbon	1K ohms 1/16W
R25	YF2116112JT	Carbon	1.1K ohms 1/16W
R26	YF2116102GT	Carbon	1K ohms 1/16W
R27	YF2116222GT	Carbon	2.2K ohms 1/16W
R28	YF2116333GT	Carbon	33K ohms 1/16W
R29,30	YF2116243GT	Carbon	24K ohms 1/16W
R31	YF2116682JT	Carbon	6.8K ohms 1/16W
R32	YF2116332GT	Carbon	3.3K ohms 1/16W
R35,36	YF2116202JT	Carbon	2K ohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION	
R37	YF2116272JT	Carbon	2.7K ohms 1/16W
R38	YF2116152JT	Carbon	1.5K ohms 1/16W
R39,40	YF2116331JT	Carbon	330 ohms 1/16W
R41	YF2116821GT	Carbon	820 ohms 1/16W
R42	YF2116432JT	Carbon	4.3K ohms 1/16W
R43	YF2116272JT	Carbon	2.7K ohms 1/16W
R44	YF2116162JT	Carbon	1.6K ohms 1/16W
R45	YF2116221JT	Carbon	220 ohms 1/16W
R46	YF2116103JT	Carbon	10K ohms 1/16W
R47	YF2116332JT	Carbon	3.3K ohms 1/16W
R48	YF2116102GT	Carbon	1K ohms 1/16W
R49	YF2116103JT	Carbon	10K ohms 1/16W
R50	YF2116152JT	Carbon	1.5K ohms 1/16W
R51	ER0S2CKF5601	Metal	5.6K ohms 1/8W
R52	YF2116222GT	Carbon	2.2K ohms 1/16W
R92	YF2116103JT	Carbon	10K ohms 1/16W
R93	YF2116104JT	Carbon	100K ohms 1/16W
R94,95	YF2116102GT	Carbon	1K ohms 1/16W
R96	LP161KGT57	Carbon	1K ohms
R227	ERD10TJ821	Carbon	820 ohms 1/8W
R235	ERD10TJ101	Carbon	100 ohms 1/8W
R236	ERD10TJ103	Carbon	10K ohms 1/8W
R237	ERD10TJ124	Carbon for PAL	120K ohms 1/16W
C9	YF400103FZT	Ceramic	0.01 µF
C10	YF400330CHJT	Ceramic	33 pF for NTSC
	YF400270CHJT	Ceramic	27 pF for PAL
C11	ECEA0JKS470	Electrolytic	47 µF 6.3V
C12	ECEA1CKS100	Electrolytic	10 µF 16V
C13-15	YF400103FZT	Ceramic	0.01 µF
C16	YF400104FZT	Ceramic	0.1 µF
C17	ECEA0JKS470	Electrolytic	47 µF 6.3V
C18	YF400103FZT	Ceramic	0.01 µF
C19	ECEA0JKS470	Electrolytic	47 µF 6.3V
C20	YF400180UJJT	Ceramic	18 pF for NTSC
	YF400120CHJT	Ceramic	12 pF for PAL
C29	ECEA0JKS470	Electrolytic	47 µF 6.3V
C31	YF400101CHJT	Ceramic	100 pF
C32,35	YF400104FZT	Ceramic	0.1 µF
C162	ECCF1H121JC	Ceramic	120 pF for PAL
CF2	YFSTR4045	Filter for NTSC	
	YFSTR4046	Filter for PAL	
CF3	YFSTR4043	Filter for NTSC	
	YFSTR4044	Filter for PAL	

LED BOARD

PCB2	o YFVKZAD37P1A	Printed Circuit Board Assy	
D1	LN28RP	Power Indicator	
D2	LN48YP	Gen-Lock Indicator	
R240	ERD10TJ181	Carbon	180 ohms 1/8W
VR101	YFK111A-1KB	Variable Resistor	1K ohms
SW1	YFSSS312L2N	Slide Switch	

32 PIN CONNECTOR BOARD

SYMBOL NO.	PART NO.	DESCRIPTION
PCB3	o YFVKZAD37P2A	Printed Circuit Board Assy
CN1	YFA348949324	32 pin Connector

ACCESSORY PARTS/PACKAGING PARTS

M32	o YFV8QA1087BN	Operating Instruction for NTSC
	o YFV8QA1088AN	Operating Instruction for WV-AD37E
	o YFV8QA1089AN	Operating Instruction for WV-AD37N
M33	VQA0120-3	Warranty Card for NTSC
M34	YWV22XPRB99K	Service Center List for NTSC
M35 △	YFV8SA0009CN	Safety Guide for NTSC
M36	YWT20X25C03	Polyethylene Bag
M40	o YFV9CA0886AN	Packaging for NTSC
	o YFV9CB0886AN	Packaging for WV-AD37E
	o YFV9CC0886AN	Packaging for WV-AD37N

CAMERA REMOTE CONTROLLER
WV-CR12

MISCELLANEOUS

IC101	AN6541	IC
CN1	YGRM15TRD10S	10 pin Camera Connector
CN2	BNC-BRZ-1S	BNC Monitor Out Connector
CN3	YF01P0420-00	Audio Out Jack
CN4	YFD0-121N-601	EVF Connector
CN5	o EMCTMA07C07V	10 pin VTR Connector
M1	o YFV5WA0291B3	Rear Panel
M2	o YFV5WA0292A4	Bottom Blank Panel
M3	o YFV5EA0380B2	Upper Cover
M4	o YFV5EA0381B3	Side Cover
M5	o YFV2KA0149B2	Main Chassis
M6	YFV5RA0035A4	Knob A for Slied Switch
M7	YFV5RA0043A4	Knob B for VR
M8	YFV5RA0072A4	Knob C
M9	o YFV6JA0040A4	Button
M10	o YFV2CA0118A4	Hold Plate
M11	o YFV2SA0256A4	Mounting Angle
M12	o YFV2SA0257B3	Mounting Angle
M13	YFSJ-5007	Rubber Foot
M14	o YFV2JA0011A4	Bracing Strut
M15	o YFV2FA0130A4	Cushion
M16	o YFV4JA0133A4	Spring
M17	o YFV4JA0135A4	Spring
M18 △	YFV7MA0099A4	Safety Label
M19 △	YFV7MA0103A4	Shock Label for NTSC
M20 △	YFV7MA0107A4	FCC Safety Label for NTSC
M21 △	YFV7MA0113A4	Safety Label

SYMBOL NO.	PART NO.	DESCRIPTION
M22 ⚠	o YFV7QA1086A4	Main Label for NTSC
⚠	o YFV7QA1087A4	Main Label for WV-CR12E
⚠	o YFV7QA1088A4	Main Label for WV-CR12N
M23	YFV1EA0063A4	Special Screw
M24	YFV5MA0022A4	Shoe
M25	o YFCF51703A	Knob Base
M26	o YFCF59609A	Knob Cap
M27-1	o YFV2PA0182A4	Knob Label B
M27-2	o YFV2PB0182A4	Knob Label R

CR MAIN BOARD

SYMBOL NO.	PART NO.	DESCRIPTION
PCB1	o YFVKYCR12P1A	Printed Circuit Board Assy
IC1	MN4053BS	IC
IC2	MN1551CVT3S	IC
IC3	M5234FP	IC
IC4	MN1280T	IC
IC5	NJM3414M	IC
IC6	MN1754CVS2	IC
Q4	2SD601-QR	Transistor
Q5	2SA1022-C	Transistor
Q6	2SC2404-CD	Transistor
Q7-13	2SA1022-C	Transistor
Q14,15	2SC2404-CD	Transistor
Q16-18	2SD601-QR	Transistor
Q19	2SB709-Q	Transistor
Q20,21	2SD601-QR	Transistor
Q22	2SC2404-CD	Transistor
Q23-26	2SD601-QR	Transistor
Q27	2SA1022-C	Transistor
Q28	2SC2404-CD	Transistor
Q29-32	2SA1022-C	Transistor
Q33,34	2SC2404-CD	Transistor
Q35,36	2SD601-QR	Transistor
Q37-39	2SA1022-C	Transistor
Q40	2SC2404-CD	Transistor
Q41	2SD601-QR	Transistor
Q42	2SC2404-CD	Transistor
Q43	2SD601-QR	Transistor
Q44,45	2SC2404-CD	Transistor
Q46	2SD601-QR	Transistor
Q47-50	2SA1022-C	Transistor
Q51-55	2SD601-QR	Transistor
Q56	2SB709-Q	Transistor
Q57-60	2SD601-QR	Transistor
Q61	2SB709-Q	Transistor
Q62-64	2SD601-QR	Transistor
Q65	2SB709-Q	Transistor
Q66	2SD601-QR	Transistor
Q67	2SB709-Q	Transistor
Q68	2SD601-QR	Transistor
D1-3	MA151WA	Diode
D4,5	MA151K	Diode
D6	MA151WK	Diode
D7,8	MA151K	Diode

SYMBOL NO.	PART NO.	DESCRIPTION	
D9	MA153	Diode	
D10	MA151K	Diode	
D11	MA153	Diode	
D12	MA151K	Diode	
R1	YF2116750JT	Carbon	75 ohms 1/16W
R2	YF2116221JT	Carbon	220 ohms 1/16W
R12	YF2116123JT	Carbon	12K ohms 1/16W
R13	YF2116203JT	Carbon	20K ohms 1/16W
R14	YF2116222GT	Carbon	2.2K ohms 1/16W
R15	YF2116103JT	Carbon	10K ohms 1/16W
R16	YF2116821GT	Carbon	820 ohms 1/16W
R17	YF2116681JT	Carbon	680 ohms 1/16W
R18	YF2116220JT	Carbon	22 ohms 1/16W
R19	YF2116392JT	Carbon	3.9K ohms 1/16W
R20	YF2116332JT	Carbon	3.3K ohms 1/16W
R21	YF2116182JT	Carbon	1.8K ohms 1/16W
R22	YF2116560JT	Carbon	56 ohms 1/16W
R23	YF2116392JT	Carbon	3.9K ohms 1/16W
R24	YF2116122JT	Carbon	1.2K ohms 1/16W
R25	YF2116560JT	Carbon	56 ohms 1/16W
R26	YF2116562JT	Carbon	5.6K ohms 1/16W
R27	YF2116333GT	Carbon	33K ohms 1/16W
R28	YF2116560JT	Carbon	56 ohms 1/16W
R29	YF2116333GT	Carbon	33K ohms 1/16W
R30	YF2116560JT	Carbon	56 ohms 1/16W
R31	YF2116202JT	Carbon	2K ohms 1/16W
R32	YF2116333GT	Carbon	33K ohms 1/16W
R33	YF2116332JT	Carbon	3.3K ohms 1/16W
R34	YF2116333GT	Carbon	33K ohms 1/16W
R35	YF2116622JT	Carbon	6.2K ohms 1/16W
R36	YF2116153JT	Carbon	15K ohms 1/16W
R37	YF2116273JT	Carbon	27K ohms 1/16W
R38	YF2116433JT	Carbon	43K ohms 1/16W
R39,41	YF2116153JT	Carbon	15K ohms 1/16W
R42	YF2116153JT	Carbon	15K ohms 1/16W
R43	YF2116560JT	Carbon	56 ohms 1/16W
R44	YF2116333GT	Carbon	33K ohms 1/16W
R45	YF2116392JT	Carbon	3.9K ohms 1/16W
R46	YF2116222GT	Carbon	2.2K ohms 1/16W
R47	YF2116103JT	Carbon	10K ohms 1/16W
R48	YF2116333GT	Carbon	33K ohms 1/16W
R49	YF2116101JT	Carbon	100 ohms 1/16W
R50	YF2116680JT	Carbon	68 ohms 1/16W
R51	YF2116473GT	Carbon	47K ohms 1/16W
R52	YF2116750JT	Carbon	75 ohms 1/16W
R53	YF2116562JT	Carbon	5.6K ohms 1/16W
R54-56	YF2116103JT	Carbon	10K ohms 1/16W
R57	YF2116683JT	Carbon	68K ohms 1/16W
R58	YF2116183JT	Carbon	18K ohms 1/16W
R59	YF2116273JT	Carbon	27K ohms 1/16W
R60	YF2116563JT	Carbon	56K ohms 1/16W
R61	YF2116222GT	Carbon	2.2K ohms 1/16W
R62	YF2116751JT	Carbon	750 ohms 1/16W
R63,64	YF2116332JT	Carbon	3.3K ohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION	
R65	YF2116182JT	Carbon	1.8K ohms 1/16W
R66	YF2116561JT	Carbon	560 ohms 1/16W
R67,68	YF2116560JT	Carbon	56 ohms 1/16W
R69	YF2116392JT	Carbon	3.9K ohms 1/16W
R70	YF2116122JT	Carbon	1.2K ohms 1/16W
R71	YF2116562JT	Carbon	5.6K ohms 1/16W
R72	YF2116392JT	Carbon	3.9K ohms 1/16W
R73	YF2116222GT	Carbon	2.2K ohms 1/16W
R74	YF2116103JT	Carbon	10K ohms 1/16W
R75	YF2116101JT	Carbon	100 ohms 1/16W
R76	YF2116560JT	Carbon	56 ohms 1/16W
R77,78	YF2116750JT	Carbon	75 ohms 1/16W
R79-82	YF2116333GT	Carbon	33K ohms 1/16W
R83	YF2116750JT	Carbon	75 ohms 1/16W
R84,85	YF2116183JT	Carbon	18K ohms 1/16W
R86,87	YF2116272JT	Carbon	2.7K ohms 1/16W
R88	YF2116560JT	Carbon	56 ohms 1/16W
R89	YF2116561JT	Carbon	560 ohms 1/16W
R90	YF2116560JT	Carbon	56 ohms 1/16W
R91	YF2116682JT	Carbon	6.8K ohms 1/16W
R92	YF2116332JT	Carbon	3.3K ohms 1/16W
R93	YF2116182JT	Carbon	1.8K ohms 1/16W
R94	YF2116560JT	Carbon	56 ohms 1/16W
R95	YF2116392JT	Carbon	3.9K ohms 1/16W
R96	YF2116122JT	Carbon	1.2K ohms 1/16W
R97	YF2116560JT	Carbon	56 ohms 1/16W
R98	YF2116333GT	Carbon	33K ohms 1/16W
R99	YF2116560JT	Carbon	56 ohms 1/16W
R100	YF2116333GT	Carbon	33K ohms 1/16W
R101	YF2116560JT	Carbon	56 ohms 1/16W
R102	YF2116333GT	Carbon	33K ohms 1/16W
R103	YF2116622JT	Carbon	6.2K ohms 1/16W
R104	YF2116273JT	Carbon	27K ohms 1/16W
R105	YF2116153JT	Carbon	15K ohms 1/16W
R106	YF2116560JT	Carbon	56 ohms 1/16W
R107	YF2116473GT	Carbon	47K ohms 1/16W
R108	YF2116333GT	Carbon	33K ohms 1/16W
R109	YF2116392JT	Carbon	3.9K ohms 1/16W
R110	YF2116101JT	Carbon	100 ohms 1/16W
R111	YF2116102GT	Carbon	1K ohms 1/16W
R113	YF2116750JT	Carbon	75 ohms 1/16W
R114	YF2116273JT	Carbon	27K ohms 1/16W
R115	YF2116103JT	Carbon	10K ohms 1/16W
R116	YF2116152JT	Carbon	1.5K ohms 1/16W
R117	YF2116560JT	Carbon	56 ohms 1/16W
R118	YF2116681JT	Carbon	680 ohms 1/16W
R119	YF2116151JT	Carbon	150 ohms 1/16W
R120	YF2116471JT	Carbon	470 ohms 1/16W
R121	YF2116561JT	Carbon	560 ohms 1/16W
R122-125	YF2116332JT	Carbon	3.3K ohms 1/16W
R126	YF2116182JT	Carbon	1.8K ohms 1/16W
R127	YF2116560JT	Carbon	56 ohms 1/16W
R128	YF2116392JT	Carbon	3.9K ohms 1/16W
R129	YF2116122JT	Carbon	1.2K ohms 1/16W
R130	YF2116682JT	Carbon	6.8K ohms 1/16W
R131	YF2116392JT	Carbon	3.9K ohms 1/16W
R132	YF2116203JT	Carbon	20K ohms 1/16W
R133	YF2116103JT	Carbon	10K ohms 1/16W
R134,135	YF2116272JT	Carbon	2.7K ohms 1/16W
R136	YF2116331JT	Carbon	330 ohms 1/16W
R137	YF2116392JT	Carbon	3.9K ohms 1/16W
R138	YF2116103JT	Carbon	10K ohms 1/16W
R139	YF2116272JT	Carbon	2.7K ohms 1/16W
R140	YF2116223JT	Carbon	22K ohms 1/16W
R141	YF2116103JT	Carbon	10K ohms 1/16W
R142	YF2116243JT	Carbon	24K ohms 1/16W
R143,144	YF2116103JT	Carbon	10K ohms 1/16W
R145	YF2116104JT	Carbon	100K ohms 1/16W
R146	YF2116221JT	Carbon	220 ohms 1/16W
R147,148	YF2116222GT	Carbon	2.2K ohms 1/16W
R149,150	YF2116203JT	Carbon	20K ohms 1/16W
R151	YF2116560JT	Carbon	56ohms 1/16W
R152	YF2116332JT	Carbon	3.3K ohms 1/16W
R153,154	YF2116102GT	Carbon	1Kohms 1/16W
R155	YF2116222GT	Carbon	2.2K ohms 1/16W
R156	YF2116152JT	Carbon	1.5K ohms 1/16W
R157,158	YF2116511JT	Carbon	510 ohms 1/16W
R159	YF2116222GT	Carbon	2.2K ohms 1/16W
R160	YF2116302JT	Carbon	3Kohms 1/16W
R161	YF2116103JT	Carbon	10K ohms 1/16W
R162	YF2116750JT	Carbon	75 ohms 1/16W
R163	YF2116101JT	Carbon	100 ohms 1/16W
R164	YF2116331JT	Carbon	330 ohms 1/16W
R165	YF2116101JT	Carbon	100 ohms 1/16W
R166	YF2116562JT	Carbon	5.6K ohms 1/16W
R167	YF2116332JT	Carbon	3.3K ohms 1/16W
R168	YF2116223JT	Carbon	22K ohms 1/16W
R169	YF2116750JT	Carbon	75 ohms 1/16W
R170	YF2116101JT	Carbon	100ohms 1/16W
R171	YF2116331JT	Carbon	330ohms 1/16W
R172	YF2116101JT	Carbon	100ohms 1/16W
R173	YF2116562JT	Carbon	5.6K ohms 1/16W
R174	YF2116332JT	Carbon	3.3K ohms 1/16W
R175	YF2116223JT	Carbon	22Kohms 1/16W
R176-178	YF2116473GT	Carbon	47Kohms 1/16W
R179,180	YF2116103JT	Carbon	10Kohms 1/16W
R181-184	YF2116473GT	Carbon	47Kohms 1/16W
R185	YF2116101JT	Carbon	100ohms 1/16W
R186	YF2116472JT	Carbon	4.7K ohms 1/16W
R187,188	YF2116392JT	Carbon	3.9K ohms 1/16W
R189	YF2116512JT	Carbon	5.1K ohms 1/16W
R190	YF2116473GT	Carbon	47Kohms 1/16W
R191	YF2116242GT	Carbon	2.4K ohms 1/16W
R192	YF2116683GT	Carbon	68Kohms 1/16W
R193	YF2116333GT	Carbon	33Kohms 1/16W
R194	YF2116303GT	Carbon	30Kohms 1/16W
R195-197	YF2116103JT	Carbon	10Kohms 1/16W
R198-200	YF2116473GT	Carbon	47Kohms 1/16W
R201	YF2116103JT	Carbon	10Kohms 1/16W
R202	YF2116303JT	Carbon	30Kohms 1/16W

SYMBOL NO.	PART NO.	DESCRIPTION
R203	YF2116103JT	Carbon 10K ohms 1/16W
R204	YF21158R2JT	Carbon 8.2 ohms 1/16W
R205,206	YF2116103JT	Carbon 10K ohms 1/16W
R207	YF2116222GT	Carbon 2.2K ohms 1/16W
R208	YF2116103JT	Carbon 10K ohms 1/16W
R209	YF2116153JT	Carbon 15K ohms 1/16W
R210	YF2116363JT	Carbon 36K ohms 1/16W
R211	YF2116222GT	Carbon 2.2K ohms 1/16W
R212,213	YF2116223JT	Carbon 22K ohms 1/16W
R214	YF2116103JT	Carbon 10K ohms 1/16W
R215	YF2116473GT	Carbon 47K ohms 1/16W
R216	YF2116103JT	Carbon 10K ohms 1/16W
R217	YF2116682JT	Carbon 6.8K ohms 1/16W
R218	YF2116470JT	Carbon 47 ohms 1/16W
R219	YF2116152JT	Carbon 1.5K ohms 1/16W
R220	YF2116182JT	Carbon 1.8K ohms 1/16W
R221	YF2116222GT	Carbon 2.2K ohms 1/16W
R222,223	YF2116333GT	Carbon 33K ohms 1/16W
R224	YF2116103JT	Carbon 10K ohms 1/16W
R225,226	YF2116223JT	Carbon 22K ohms 1/16W
R227	YF2116683JT	Carbon 68K ohms 1/16W
R228	YF2116473GT	Carbon 47K ohms 1/16W
R229	YF2116222GT	Carbon 2.2K ohms 1/16W
R300	YF2116104JT	Carbon 100K ohms 1/16W
VR1	YFH0521A1K	Variable Resistor 1K ohms
Z1	YFRKM8LFW154	Block Resistor
C4	ECEA0JKS470	Electrolytic 47 μF 6.3V
C5	ECEA0JKS101	Electrolytic 100μF 6.3V
C6	YF400390CHJT	Ceramic 39 pF
C7,8	YF400820CHJT	Ceramic 82 pF
C9	YF400680CHJT	Ceramic 68 pF
C10	YF400560CHJT	Ceramic 56 pF
C11	YF400270CHJT	Ceramic 27 pF
C12	YF400390CHJT	Ceramic 39 pF
C13	YF400820CHJT	Ceramic 82 pF
C14	YF400150CHJT	Ceramic 15 pF
C15	ECEA1AKS470	Electrolytic 47 μF 10V
C16	ECEA1CKS100	Electrolytic 10 μF 16V
C17	ECEA0JU102	Electrolytic 1000 μF 6.3V
C18	ECEA1HKS010	Electrolytic 1 μF 50V
C19	ECEA1AKS470	Electrolytic 47 μF 10V
C20	ECEA0JKS101	Electrolytic 100μF 6.3V
C21	ECEA1CKS100	Electrolytic 10 μF 16V
C22,23	ECEA1AKS470	Electrolytic 47 μF 10V
C24	ECEA0JU102	Electrolytic 1000 μF 6.3V
C25	ECEA1AKS470	Electrolytic 47 μF 10V
C26	ECEA0JKS101	Electrolytic 100μF 6.3V
C27	YF400560CHJT	Ceramic 56 pF
C28	YF400820CHJT	Ceramic 82 pF
C29	YF400151CHJT	Ceramic 150 pF
C30	YF400121CHJT	Ceramic 120 pF
C31	YF400560CHJT	Ceramic 56 pF
C32	YF400330CHJT	Ceramic 33 pF
C33-35	ECEA1AKS470	Electrolytic 47 μF 10V

SYMBOL NO.	PART NO.	DESCRIPTION
C36	YF400101CHJT	Ceramic 100 pF
C37	YF400681XKT	Ceramic 680μF 50V
C38	YF400471CHJT	Ceramic 470 pF
C39	YF400271CHJT	Ceramic 270 pF
C40	ECEA1CKS100	Electrolytic 10 μF 16V
C41	ECEA0JKS101	Electrolytic 100μF 6.3V
C42	ECEA1CKS100	Electrolytic 10 μF 16V
C43	YF400151CHJT	Ceramic 150 pF
C44	ECEA1AKK100	Electrolytic 10 μF 10V
C46	ECEA1AKS470	Electrolytic 47 μF 10V
C47	ECEA1ASS101	Electrolytic 100μF 10V
C48,49	ECEA1AKS470	Electrolytic 47 μF 10V
C50	ECSF1AE476	Tantalum 47 μF 10V
C51	ECEA1AKS470	Electrolytic 47 μF 10V
C52	ECEA1AFS470	Electrolytic 47 μF 10V
C53	ECEA1AFS221	Electrolytic 220 μF 10V
C54,55	ECEA1AKS470	Electrolytic 47 μF 10V
C56	YF400121CHJT	Ceramic 120 pF
C57	YF400390CHJT	Ceramic 39 pF
C58	ECSF1AE476	Tantalum 47 μF 10V
C59	ECEA1AKS470	Electrolytic 47 μF 10V
C60	ECEA1HKS010	Electrolytic 1 μF 50V
C61	YF426224FZS	Ceramic 0.22 μF 50V
C62	ECQV1H474JZ	Plastic 0.47 μF 50V
C63	YF400104FZT	Ceramic 0.1 μF
C70	ECEA0JKK100	Electrolytic 10 μF 6.3V
CT1	ECRHA040E11	Trimmer Capacitor 40 pF
L1-3	EL05SI8R2K	Coil 8.2μH
L4	EL05SI101K	Coil 100 μH
L5	EL05SI8R2K	Coil 8.2μH
SW1	YFSSS222A	Slide Switch
X1	YFEF0-FC4004	Oscillator
X2	YFKF38G	Crystal Oscillator
X3	EF0-FC8004	Crystal Oscillator
F1,2 ⚠	YFSP510NM0	Current Fuse 1A
J1	YF21160R00T	Jamper Resistor
CN1-JM	EMCS0550Z	5 pin Jack Male
CN2-JM	EMCS0250Z	2 pin Jack Male
CN3-JM	EMCS0850Z	8 pin Jack Male
CN4-JM	EMCS1150Z	11 pin Jack Male
CN5-JM	EMCS1050Z	10 pin Jack Male
CN6-JM	EMCS0350Z	3 pin Jack Male
CN7-JM	EMCS0750Z	7 pin Jack Male
CN8-JM	EMCS0250Z	2 pin Jack Male
CN9-JM	EMCS1050Z	10 pin Jack Male

SWITCH BOARD

SYMBOL NO.	PART NO.	DESCRIPTION
PCB2	o YFVKZCR12P2A	Printed Circuit Board
SW1	YFSBU1024L10	Rotary Switch

SYMBOL NO.	PART NO.	DESCRIPTION
CONTROL BOARD		
PCB3	o YFVKZCR12P3A	Printed Circuit Board Assy
D1-23	MA165	Diode
D24	LN29RD	LED
R1	ERD10TJ302	Carbon 3K ohms 1/8W
R2	ERD10TJ221	Carbon 220 ohms 1/8W
VR1-3	YFK111A-10KB	Variable Resistor 10K ohms
C1-10	ECQM1H393KZ	Plastic 0.039 µF 50V
SW1-8	KEF10905	Push Switch
SW9,10	YFKEG10905	Push Switch
SW11-14	KEG10902	Push Switch
SW15-22	YFSSS312L4	Slide Switch
SW23	YFSSS323L2	Slide Switch
CR SUB BOARD		
PCB4	o YFVKYCR12P4A	Printed Circuit Board Assy
IC1	YFMN4538BS	IC
Q1,2	2SD601-QR	Transistor
D1-3	MA151K	Diode
D4	MA165	Diode
R1	YF2116203JT	Carbon 20K ohms 1/16W
R2	YF2116103JT	Carbon 10K ohms 1/16W
R3	YF2116683JT	Carbon 68K ohms 1/16W
R4	YF2116333GT	Carbon 33K ohms 1/16W
R5	YF2116223JT	Carbon 22K ohms 1/16W
R6	YF2116102GT	Carbon 1K ohms 1/16W
R7	YF2116222GT	Carbon 2.2K ohms 1/16W
R8	YF2116333GT	Carbon 33K ohms 1/16W
C1	ECEA1HKS010	Electrolytic 1 µF 50V
C2	ECEA1CKS100	Electrolytic 10 µF 16V
C3	ECEA1VKS3R3	Electrolytic 3.3 µF 35V
ACCESSORY PARTS/PACKAGING PARTS		
CN10	o YFEO-111J-601	Control Cable
M31	o YFV8QA1051AN	Operating Instruction for NTSC
	o YFV8QA1052AN	Operating Instruction for WV-CR12E
	o YFV8QA1053AN	Operating Instruction for WV-CR12N
M32	VQA0120-3	Warranty Card
M33	YWV22XPRB99K	Service Center List
M34 △	YFV8SA0009CN	Safety Card
M35	XZB26X40C05	Bag
M36	YWT050803	Bag
M37	YWT10X35C03	Bag
M40	o YFV9CA0854AN	Packaging for NTSC
	o YFV9CB0854AN	Packaging for WV-CR12E
	o YFV9CC0854AN	Packaging for WV-CR12N

SYMBOL NO.	PART NO.	DESCRIPTION
PAN/TILT HEAD WV-PH10		
MISCELLANEOUS		
D101	10D1	Diode
C101,102	ECKF1H104KB	Ceramic 0.1 µF 50V
MO1	o YF140B-020	Tilt Motor Unit
MO2	o YF140C-240	Pan Motor Unit
SW3,4	o YFD2MS	Micro Switch
SW5	o YFJ-S5088	Slied Switch
CN1	o YF140C-273	Connector Cable Assy
CN2	o YFHEC-0738	DC Jack
CN10	o YF140C-275	DC Jack Cable Assy
M1	o YF140C-142	Main Base
M2	o YF140C-140U	Side Plate
M3	o YF140C-141	Pan Main Shaft Base Assy
M4	o YF140B-021	Pan Support Base Assy
M5	o YF140C-229U	Pan Motor Gear
M6	o YF140B-022	Pan Srip Plate Assy
M7	o YF140C-228U	Bearing A
M8	o YF140C-227U	Bearing B
M9	o YF140C-231U	Spring Liner
M10	o YF140C-230	T Cam
M12	o YF140C-233	Flange(X2)
M15	o YF140C-234	Stopper
M16	o YF140B-017	Out Gear Unit
M17	o YF140C-248	Ball Bearing
M18	o YF140C-235	Pan Motor Base
M19	o YF140C-232	Housing
M22	o YF140C-264	Mounting Plate for DC Jack
M24 △	o YFV7QA1094A4	Main Label for NTSC
△	o YFV7QA1095A4	Main Label for WV-PH10E
△	o YFV7QA1096A4	Main Label for WV-PH10N
M25	o YF140C-190A	Cover
M26	o YF140C-191E	Side Cover A for NTSC,WV-PH10E
	o YF140C-191D	Side Cover A for WV-PH10N
M27	o YF140C-192B	Side Cover B for NTSC,WV-PH10E
	o YF140C-192A	Side Cover B for WV-PH10N
M28	o YF140C-106	Camera Stand
M29	o YF140C-107	Camera Stand Rubber
M30	o YF506C-001AU	Camera Mounting Screws
M31	o YF140C-197AU	Insulater Paper
M32	o YF140C-105U	Decoration Plate
M33	o YF140C-198	Cushion Rubber
M34	o YF134C-009A	Shoe
M35	o YF128C-010	Spring Plate for Shoe
M36	o YF128C-005	Stopper Screw for Shoe
M37	o YF140C-206	Cord Bushing A
M40	o YF140C-202	Battery Holder Snap
M41	o YF140C-208AU	Insulater Plate for Battery
M42	o YF140C-218	Mounting Bracket for Battery Cover
M43	o YFV7SA0318B4	Battery Box Seal
M44	o YF140C-200	Stopper Screw
M45	o YF140C-193A	Battery Holder Cover A

SYMBOL NO.	PART NO.	DESCRIPTION	
M46	o YF140C-194A	Battery Holder Cover B	
M47	o YF140C-290	Cord Bushing B	
M48	o YF128C-003B	Mounting Base	
M49	o YF140C-201	Battery Holder	

CONTROL BOARD

SYMBOL NO.	PART NO.	DESCRIPTION	
PCB1	o YF140C-018U	Printed Circuit Board Assy	
IC1,2	o TA75339P	IC	
IC3,4	o TA7354	IC	
Q1,2	2SB1015 or	Transistor	
	2SA490	Transistor	
Q3,4	2SC1815	Transistor	
D1-6	IS1588	Diode	
D7	05Z3.6	Zenner Diode	
D8	10D1	Diode	
R1	ERD25FJ183	Carbon	18K ohms 1/4W
R2,3	ERD25FJ333	Carbon	33K ohms 1/4W
R4	ERD25FJ183	Carbon	18K ohms 1/4W
R5,6	ERD25FJ104	Carbon	100K ohms 1/4W
R7-14	ERD25FJ272	Carbon	2.7K ohms 1/4W
R15,16	ERD25FJ680	Carbon	68 ohms 1/4W
R17,18	ERD25FJ5R1	Carbon	5.1 ohms 1/4W
R19,20	ERD25FJ331	Carbon	330 ohms 1/4W
R21,22	ERD25FJ472	Carbon	4.7K ohms 1/4W
R23,24	ERD25FJ331	Carbon	330 ohms 1/4W
R25,26	ERD25FJ272	Carbon	2.7K ohms 1/4W
R27	ERD25FJ472	Carbon	4.7K ohms 1/4W
VR1,2	o YFSR19-2.2K	Variable Rasistor	2.2K ohms
C1-3	ECKF1H153KB	Ceramic	0.015 μF 50V
C4	ECEA1CK470S	Electrolytic	47 μF 16V
C5-8	ECKF1H223KB	Ceramic	0.022 μF 50V
C9,10	ECKF1H223KB	Ceramic	0.022 μF 50V
C11,12	ECEA1CK010S	Electrolytic	1 μF 16V
C13	ECEA1CK101S	Electrolytic	100 μF 16V
CN1-JM	o YF305815000	5 pin Jack Male	
CN2-JM	o YF302815000	2 pin Jack Male	
CN3-JM	o YF304815002	4 pin Jack Male	
CN4-JM	o YF304815000	4 pin Jack Male	

SWITCH BOARD

SYMBOL NO.	PART NO.	DESCRIPTION
PCB2	o YF140B-016AU	Printed Circuit Board Assy
SW1,2	o YFS-5GL13	Micro Switch

ACCESSORY PARTS/PACKAGING PARTS

SYMBOL NO.	PART NO.	DESCRIPTION
M61	o YFV8QA1058AN	Operating Instruction for NTSC
	o YFV8QA1059AN	Operating Instruction for WV-PH10E
	o YFV8QA1060AN	Operating Instruction for WV-PH10N
M62	VQA0120-3	Warranty Card for NTSC
M63	YWV22XPRB99K	Service Center List for NTSC
M64 ⚠	YFV8SA0009CN	Safety Card for NTSC
M65	YWT15X25C03	Polyethylene Bag for Power Cord
M66	YWT23X30C03	Polyethylene Bag for Printed
M67	YWT23X34C03	Polyethylene Bag for Pan/Tilt Head
M69	o YFV9CA0861AN	Packaging for NTSC
	o YFV9CA0862AN	Packaging for WV-PH10E
	o YFV9CA0872AN	Packaging for WV-PH10N
M70	YWS-RB032	Packing Label

MOUNTING BRACKET WV-Q39

MISCELLANEOUS

SYMBOL NO.	PART NO.	DESCRIPTION
CN101	o YFE0111J602	10 pin Connector Cable Assy
CN102	o YFDD8110N610	8 pin Connector
M1	o YFDVQ392201	Adaptor Base for Left Side
M2	o YFDVQ392202	Adaptor Base for Right Side
M3	o YFDVQ392403A	Reinforcement Plate
M4	o YFDVQ394401	Protection Sheet
M5	o YFDVQ393401	Stipper Screws
M6	o YFDVQ392404	Ander Plate for Adaptor
M7	YWV421-EM01U	Control Screws for Camera
M8	o YFDVQ392305	Junction Box
M9	YWSR-5P-4	Cord Bushing
M10	o YFV7QA1097A4	Main Label for NTSC
	o YFV7QA1098A4	Main Label for PAL

BUFFER BOARD

SYMBOL NO.	PART NO.	DESCRIPTION	
PCB1	o YFVKZ0Q39P1A	Printed Circuit BoardAssy	
IC1	AN78L05	IC	
Q1-4	2SD636-Q	Transistor	
R1	ERD10TJ222	Carbon	2.2K ohms 1/8W
R2	ERD10TJ103	Carbon	10K ohms 1/8W
R3	ERD10TJ274	Carbon	270K ohms 1/8W
R4	ERD10TJ562	Carbon	5.6K ohms 1/8W
R5	ERD10TJ103	Carbon	10K ohms 1/8W
R6	ERD10TJ272	Carbon	2.7K ohms 1/8W
R7	ERD10TJ822	Carbon	8.2K ohms 1/8W

SYMBOL NO.	PART NO.	DESCRIPTION	
R8	ERD10TJ224	Carbon	220K ohms 1/8W
R9	ERD10TJ392	Carbon	3.9K ohms 1/8W
R10	ERD10TJ750	Carbon	75 ohms 1/8W
C1	ECEA1AU221	Electrolytic	220 µF 6.3V
C2,3	ECEA0JKK100	Electrolytic	10 µF 6.3V
CN1,2	EMCS0650Z	6 pin Jack Male	

ACCESSORY PARTS/PACKAGING PARTS

M15	o YFV8QA1064AN	Operating Instruction for NTSC
	o YFV8QA1065AN	Operating Instruction for PAL
M16	VQA0120-3	Warranty Card
M17	YWV22XPRB99K	Service Center List
M18	YFV8SA0009CN	Safety Card
M19	YWT20X25C03	Polyethylene Bag for Printed
M20	YWT30X40C05	Polyethylene Bag for Mounting Bracket
M21	o YFV9CA0865AN	Packaging for NTSC
	o YFV9CA0866AN	Packaging for PAL
M22	YWS-RB032	Packing Label

STUDIO ZOOM LENS WV-LZ15/12

MISCELLANEOUS

SW1	o YF401614	Iris Switch
CN1	o YF401610	20 pin Connector Cable Assy
M1	YF401447	Hood Cap
M2	YF401611	Hood
M3	o YF401608	Focus Band
M4	o YF121688	Macro Button
M5	o YF616129	Zoom Lever
M6	o YF616139	Coil Spring for Macro Button
M7	o YF401613	Lens Assy
M8	o YF401602	Iris Cover
M9	o YFV7QA1126A4	Main Label

SYMBOL NO.	PART NO.	DESCRIPTION

ACCESSORY PARTS/PACKAGING PARTS

M11	o YFV8QA1042AN	Operating Instruction
M12	VQA0120-3	Warranty Card
M13	YWS-EULRB01E	Sarvice Centor List
M14	YWT20X20C03	Polyethylene Bag
M16	o YFV9CA0849AN	Packaging

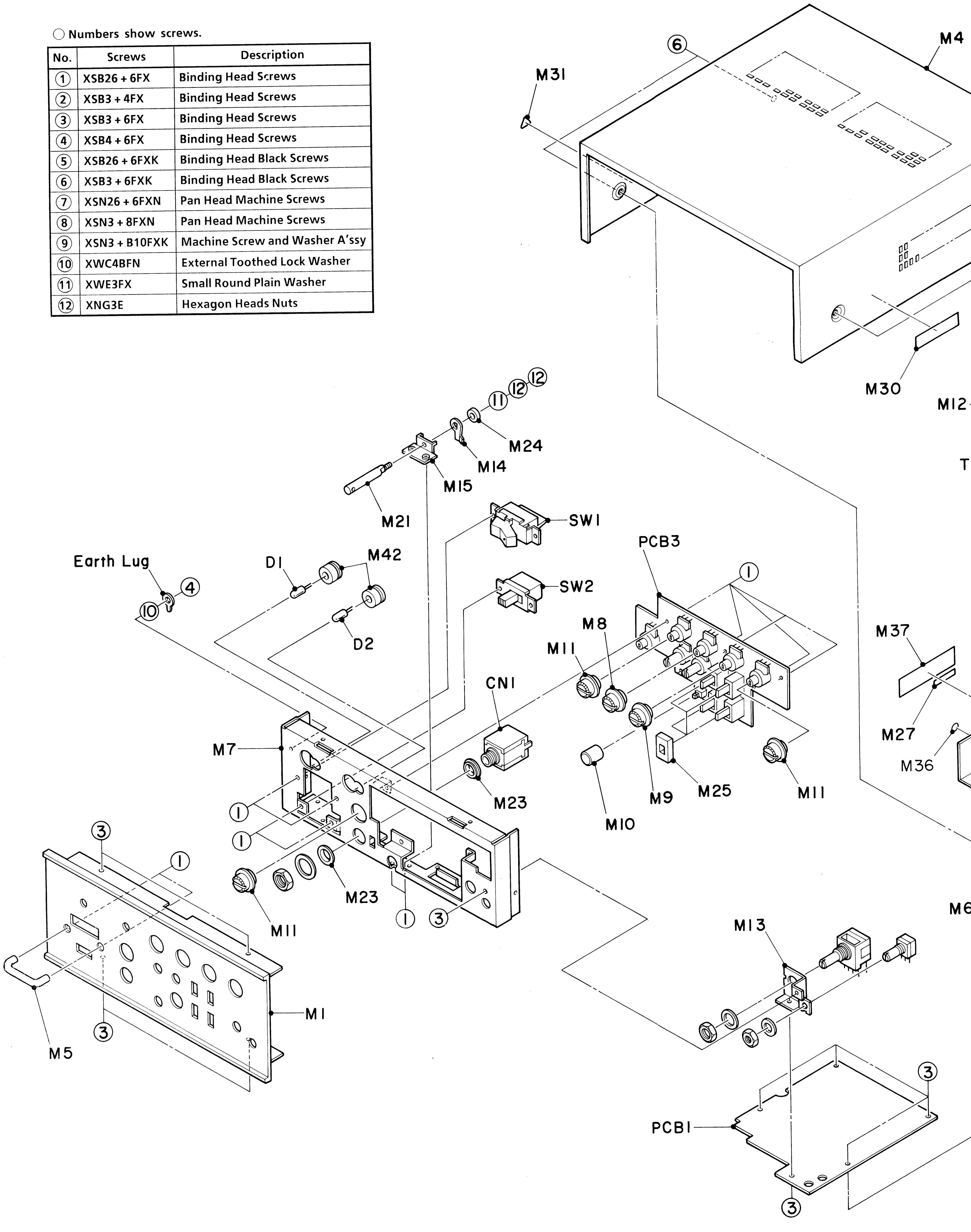
10P-14P CONVERSION CABLE WV-CA11

CN1	o SRCB6A16-14P	14 pin Connector
CN2	o RM15TJ-10S	10 pin Connector

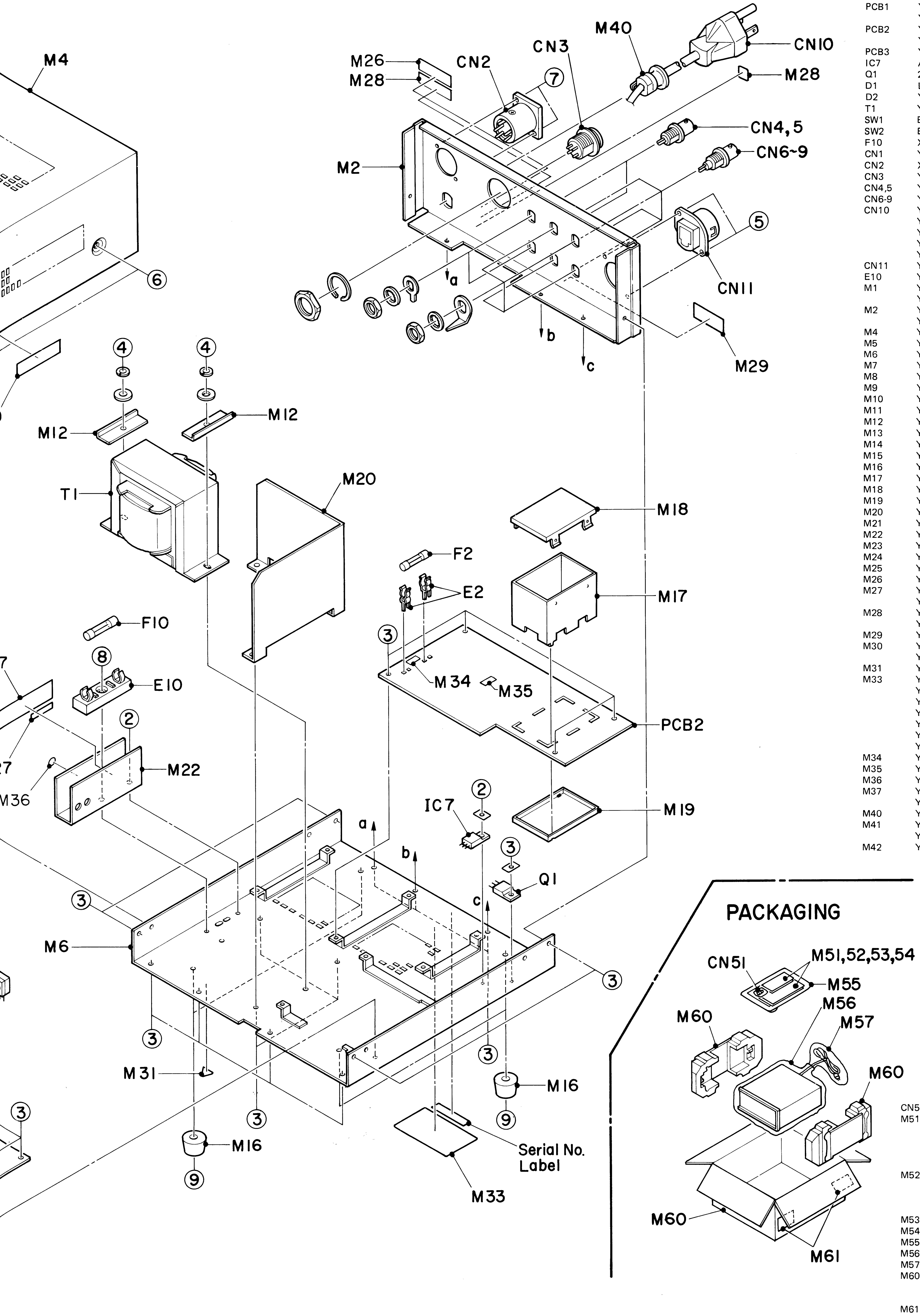
EXPLODED VIEW OF RC

○ Numbers show screws.

No.	Screws	Description
①	XSB26 + 6FX	Binding Head Screws
②	XSB3 + 4FX	Binding Head Screws
③	XSB3 + 6FX	Binding Head Screws
④	XSB4 + 6FX	Binding Head Screws
⑤	XSB26 + 6FXK	Binding Head Black Screws
⑥	XSB3 + 6FXK	Binding Head Black Screws
⑦	XSN26 + 6FXN	Pan Head Machine Screws
⑧	XSN3 + 8FXN	Pan Head Machine Screws
⑨	XSN3 + B10FXK	Machine Screw and Washer A'ssy
⑩	XWC4BFN	External Toothed Lock Washer
⑪	XWE3FX	Small Round Plain Washer
⑫	XNG3E	Hexagon Heads Nuts


⑥
M4
M31
M30
M12
T
⑫
⑪
⑫
M24
M14
M15
M21
SW1
SW2
PCB3
①
M37
M27
M36
Earth Lug
④
⑩
D1
M42
D2
M8
M11
CN1
M7
M23
M9
M25
M11
M10
①
①
③
①
M11
M23
①
③
M6
M13
M1
③
M5
③
PCB1
③

OF RCU (WV-RC35)


M4
M26
M28
CN2
⑦
M40
CN3
CN10
M28
CN4, 5
CN6~9
M2
⑤
CN11
a
b
c
M29
⑥
④
④
M12
M12
T1
M20
M18
F2
E2
M17
F10
⑧
E10
③
M34
M35
PCB2
②
M22
27
M36
IC7
②
M19
a
b
③
Q1
c
③
M6
③
③
M31
③
M16
⑨
③
M16
⑨
Serial No. Label
M33
CN51
M51,52,53,54
M55
M56
M60
M57
M60
M60
M61

PACKAGING

PCB1	YFVKZRC35P1A YFVKZRC35E1A
PCB2	YFVKZRC35P2A YFVKZRC35E2A
PCB3	YFVKZRC35P3A
IC7	AN6541
Q1	2SB946-PQ
D1	LN21RPH
D2	YFLN31GCP
T1	YFPHB66V042
SW1	EST1565T
SW2	ESD391T
F10	XBA1F20NU100
CN1	YWU194-1-1
CN2	XLR-32F512
CN3	YFCNR-1204J
CN4,5	YFBNC-BRZ-1
CN6-9	YFRBS-11
CN10	YWKP30SVT200 YWHBS-3-08 YWC0309-08F YWVM0309-08 YWKPGTSA-3
CN11	YFRC35-J12
E10	YWXN1157-03
M1	YFV5WA0286A3 YFV5WB0286A3
M2	YFV5WA0287A3 YFV5WB0287A3
M4	YFV5EA0387A2
M5	YFV5DA0005A4
M6	YFV2KA0147B2
M7	YFV2KA0148B3
M8	YFV5RB0004A4
M9	YFV5RC0004A4
M10	YFV6JA0036B4
M11	YWV3801HR01
M12	YFV2CA0117A4
M13	YFV2SA0254A4
M14	YWJ500PAM01
M15	YWJ500PAM02B
M16	YWLSR-10
M17	YFV2HA0399A4
M18	YFV2HA0400A4
M19	YFV2HA0401A4
M20	YFV2HA0402A3
M21	YFV4HA0011A4
M22	YFV2PA0167A4
M23	YWA620AER01
M24	YWJ500PWB01A
M25	YFV3AA0014A4
M26	YFV7MA0081A4
M27	YFV7MA0180A4 YFV7MA0209A4
M28	YFV7MA0197A4 YFV7MA0015A4
M29	YFV7MA0231A4
M30	YFV7MB0099A4 YFV7MB0104A4
M31	YFV7MB0103A4
M33	YFV7QA1079B4 YFV7QA1080B4 YFV7QA1081B4 YFV7QA1082B4 YFV7QA1083B4 YFV7QA1084B4 YFV7QA1085B4
M34	YFV7MA0207A4
M35	YFV7MA0219A4
M36	YW-BCG-UR01B
M37	YWS-CULRB03 YWS-CCSRB01
M40	YWSR5N4
M41	YWSR6N3-4 YWSR6W-1
M42	YWJ800PWB01

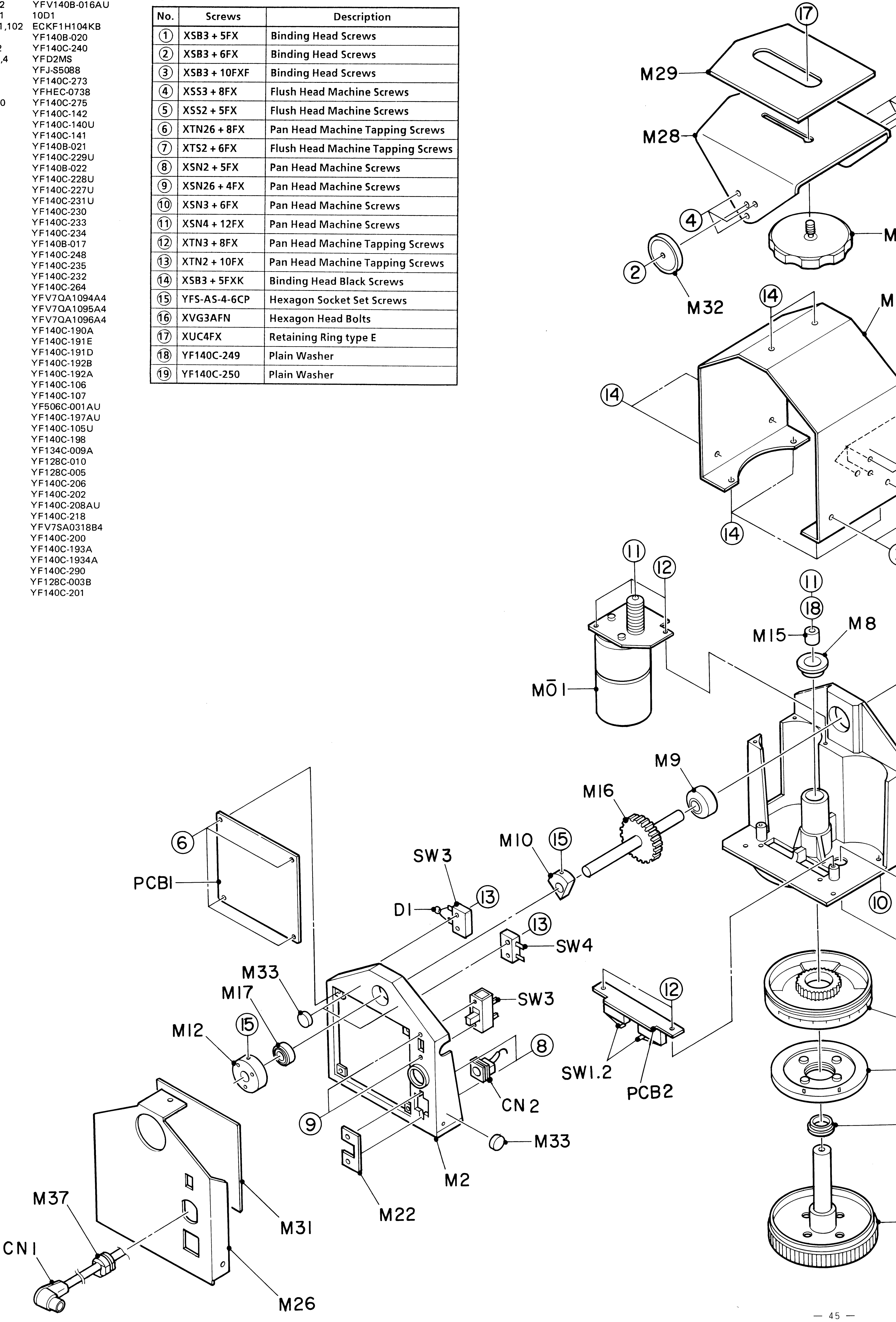
CN50	YFCNR-1204P
M51	YFV8QA1045AN YFV8QA1046AN YFV8QA1047AN YFV8QA1050AN YFV8QA1090AN
M52	VQA0120-3 VQA0054-5 19998700419 YFV8UA0004A4
M53	YWV22XPRB99K
M54	YFV8SA0009CN
M55	XZB26X40C05
M56	XZB35X50C05
M57	YWT20X35C03
M60	YFV9CA0852AN YFV9CA0903AN YFV9CA0904AN
M61	YWS-RB032

EXPLODED VIEW OF PAN/

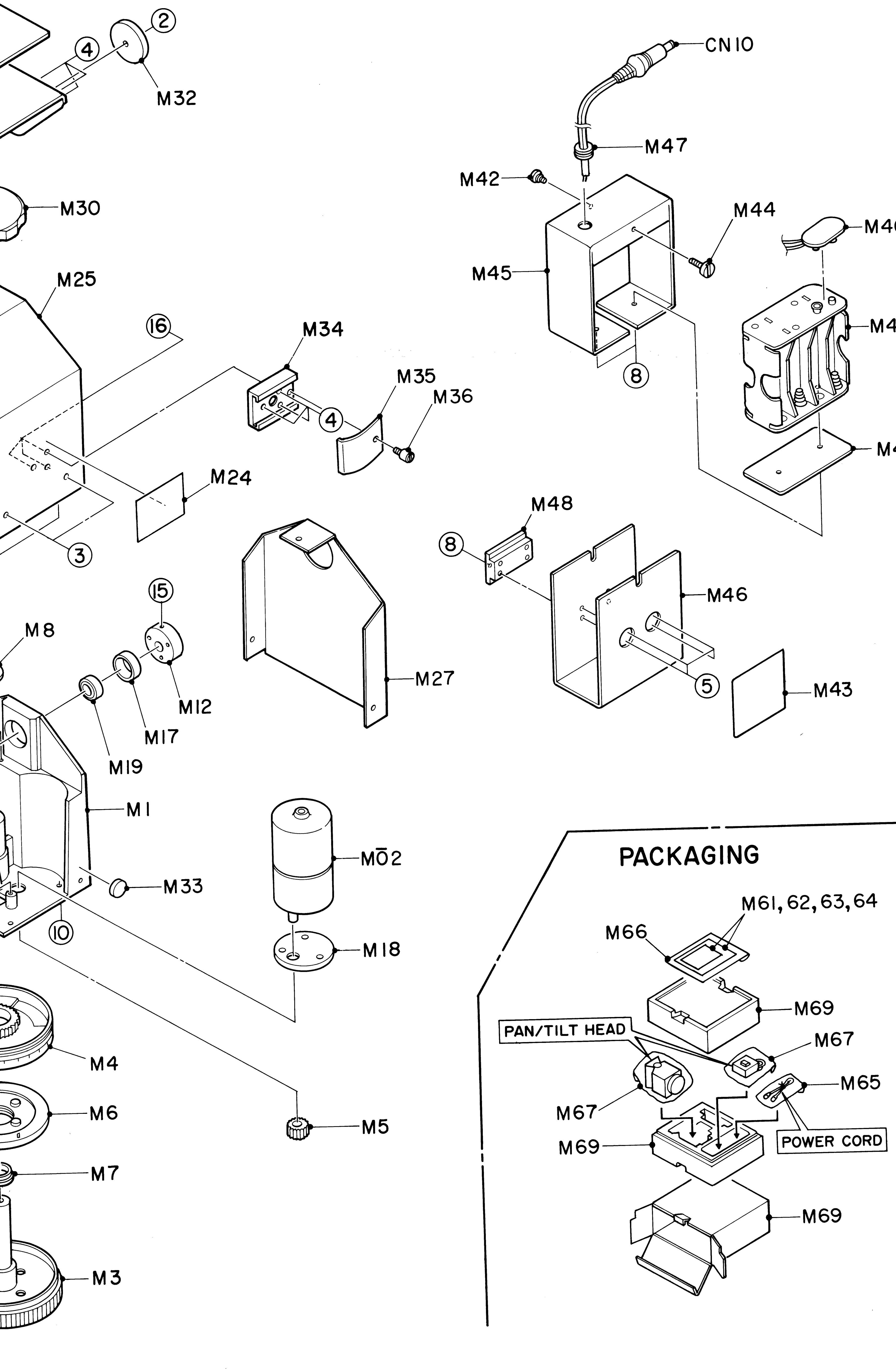
PCB1	YF140C-018U
PCB2	YFV140B-016AU
D101	10D1
C101,102	ECKF1H104KB
MO1	YF140B-020
MO2	YF140C-240
SW3,4	YFD2MS
SW5	YFJ-S5088
CN1	YF140C-273
CN2	YFHEC-0738
CN10	YF140C-275
M1	YF140C-142
M2	YF140C-140U
M3	YF140C-141
M4	YF140B-021
M5	YF140C-229U
M6	YF140B-022
M7	YF140C-228U
M8	YF140C-227U
M9	YF140C-231U
M10	YF140C-230
M12	YF140C-233
M15	YF140C-234
M16	YF140B-017
M17	YF140C-248
M18	YF140C-235
M19	YF140C-232
M22	YF140C-264
M24	YFV7QA1094A4 YFV7QA1095A4 YFV7QA1096A4
M25	YF140C-190A
M26	YF140C-191E YF140C-191D
M27	YF140C-192B YF140C-192A
M28	YF140C-106
M29	YF140C-107
M30	YF506C-001AU
M31	YF140C-197AU
M32	YF140C-105U
M33	YF140C-198
M34	YF134C-009A
M35	YF128C-010
M36	YF128C-005
M37	YF140C-206
M40	YF140C-202
M41	YF140C-208AU
M42	YF140C-218
M43	YFV7SA0318B4
M44	YF140C-200
M45	YF140C-193A
M46	YF140C-1934A
M47	YF140C-290
M48	YF128C-003B
M49	YF140C-201

○ Numbers show screws.

No.	Screws	Description
①	XSB3 + 5FX	Binding Head Screws
②	XSB3 + 6FX	Binding Head Screws
③	XSB3 + 10FXF	Binding Head Screws
④	XSS3 + 8FX	Flush Head Machine Screws
⑤	XSS2 + 5FX	Flush Head Machine Screws
⑥	XTN26 + 8FX	Pan Head Machine Tapping Screws
⑦	XTS2 + 6FX	Flush Head Machine Tapping Screws
⑧	XSN2 + 5FX	Pan Head Machine Screws
⑨	XSN26 + 4FX	Pan Head Machine Screws
⑩	XSN3 + 6FX	Pan Head Machine Screws
⑪	XSN4 + 12FX	Pan Head Machine Screws
⑫	XTN3 + 8FX	Pan Head Machine Tapping Screws
⑬	XTN2 + 10FX	Pan Head Machine Tapping Screws
⑭	XSB3 + 5FXK	Binding Head Black Screws
⑮	YFS-AS-4-6CP	Hexagon Socket Set Screws
⑯	XVG3AFN	Hexagon Head Bolts
⑰	XUC4FX	Retaining Ring type E
⑱	YF140C-249	Plain Washer
⑲	YF140C-250	Plain Washer



F PAN/TILT HEAD (WV-PH10)



②
④
M32
CN10
M47
M42
M30
M44
M40
M45
M25
M49
⑯
M34
⑧
M35
M36
④
M41
M24
M48
③
⑧
⑮
M46
M8
M27
M12
⑤
M43
M17
M19
M1
M02
M33
⑩
M18
M4
M6
M5
M7
M3
PACKAGING
M61, 62, 63, 64
M66
M69
PAN/TILT HEAD
M67
M65
M67
M69
POWER CORD
M69

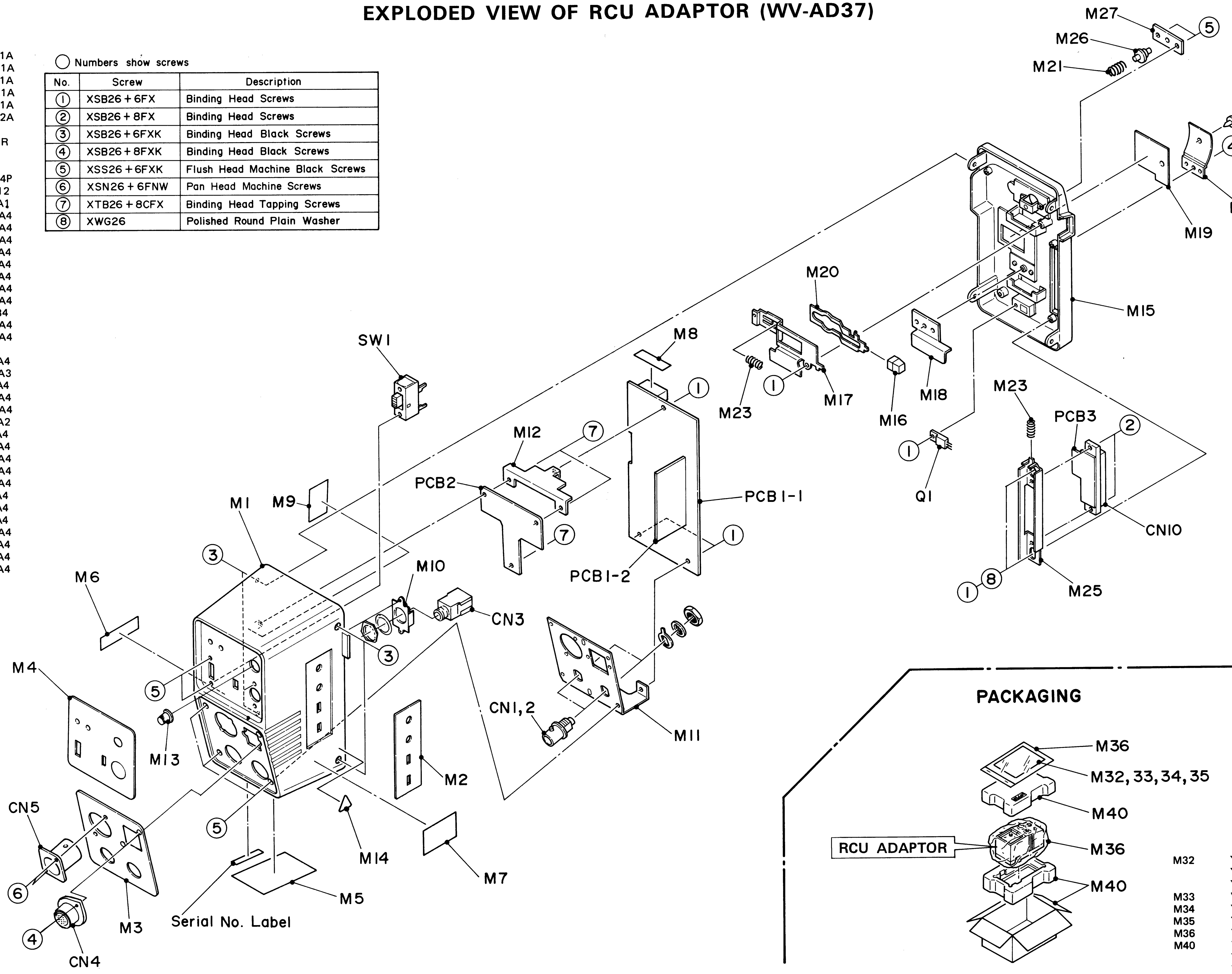
M61	YFV8QA1058AN YFV8QA1059AN YFV8QA1060AN
M62	VQA0120-3
M63	YWV22XPRB99K
M64	YFV8SA0009CN
M65	YWT15X25C03
M66	YWT23X30C03
M67	YWT23X34C03
M69	YFV9CA0861AN YFV9CA0862AN YFV9CA0872AN
M70	YWS-RB032

EXPLODED VIEW OF RCU ADAPTOR (WV-AD37)

PCB1-1	YFVKBAD37P1A YFVKBAD37E1A
PCB1-2	YFVKBAD37P1A YFVKCAD37E1A
PCB2	YFVKZAD37P1A
PCB3	YFVKZAD37P2A
Q21	2SC1398-QR
SW1	YFSSB022L6NR
CN1,2	YFBNC-BRZ-1
CN3	YWLJ194-1-1
CN4	YFAD37RCU14P
CN5	YFXLR432F512
M1	YFV5EA0379A1
M2	YFV5WA0281A4
M3	YFV5WA0279A4
M4	YFV5WA0280A4
M5	YFV7QA1075A4 YFV7QA1102A4 YFV7QA1103A4
M6	YFV7MA0106A4 YFV7MA0099A4
M7	YFV7SA0169B4
M8	YFV7MA0162A4 YFV7MA0219A4
M9	YWS-CCSRB01
M10	YFV3CA0071A4
M11	YFV2KA0145A3
M12	YFV2SA0251A4
M13	YFV5RA0048A4
M14	YFV7MA0103A4
M15	YFV5EA0383A2
M16	YFV6JA0012A4
M17	YFV2CA0114A4
M18	YFV6GA0049A4
M19	YFV6GA0050A4
M20	YFV4RA0009A4
M21	YFV4JA0084A4
M22	YFV4JA0130A4
M23	YFV4JA0131A4
M24	YFV5VA0045A4
M25	YFV2EA0045A4
M26	YFV5EA0406A4
M27	YFV2EA0046A4

○ Numbers show screws

No.	Screw	Description
①	XSB26 + 6FX	Binding Head Screws
②	XSB26 + 8FX	Binding Head Screws
③	XSB26 + 6FXK	Binding Head Black Screws
④	XSB26 + 8FXK	Binding Head Black Screws
⑤	XSS26 + 6FXK	Flush Head Machine Black Screws
⑥	XSN26 + 6FNW	Pan Head Machine Screws
⑦	XTB26 + 8CFX	Binding Head Tapping Screws
⑧	XWG26	Polished Round Plain Washer


M27
⑤
M26
M21
M24
④
M22
M19
M15
M20
M8
①
M23
①
M17
M16
M18
M23
PCB3
②
SW1
M12
⑦
PCB2
PCB1-1
Q1
①
CN10
M1
M9
⑦
①
PCB1-2
⑧
①
M25
③
M10
M6
CN3
③
M4
⑤
M13
CN1,2
M11
M2
CN5
⑤
M14
M7
⑥
M5
M3
Serial No. Label
④
CN4
M36
M32,33,34,35
M40
RCU ADAPTOR
M36
M40

PACKAGING

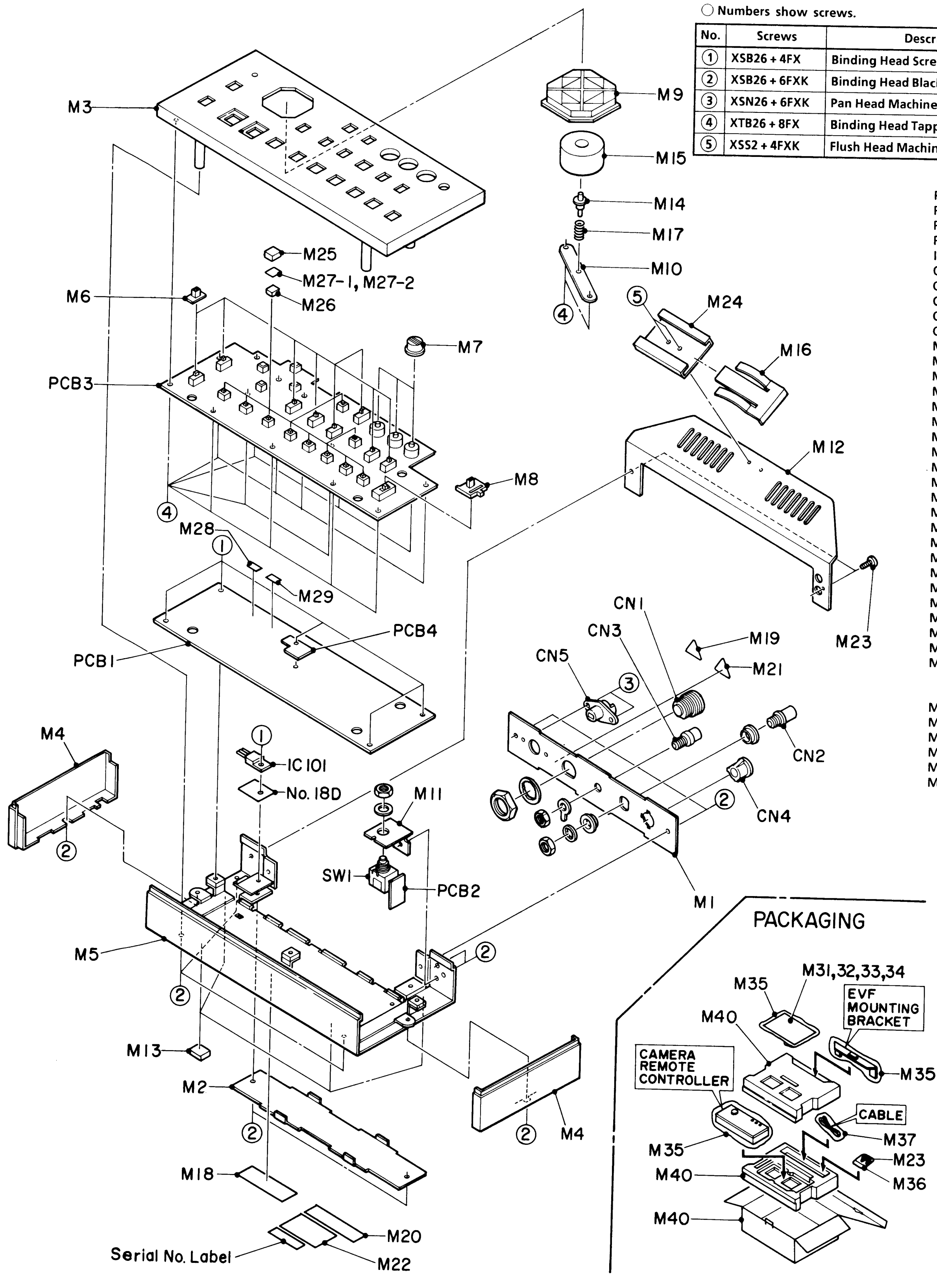
M32	YFV8QA1087BN YFV8QA1088AN YFV8QA1089AN
M33	VQA0120-3
M34	YWV22XPRB99K
M35	YFV8SA0009CN
M36	YWT20X25C03
M40	YFV9CA0886AN YFV9CB0886AN YFV9CC0886AN

EXPLODED VIEW

CAMERA REMOTE CONTROLLER (WV-CR12)

○ Numbers show screws.

No.	Screws	Description
①	XSB26 + 4FX	Binding Head Screws
②	XSB26 + 6FXK	Binding Head Black Screws
③	XSN26 + 6FXK	Pan Head Machine Black Screws
④	XTB26 + 8FX	Binding Head Tapping Black Screws
⑤	XSS2 + 4FXK	Flush Head Machine Black Screws


M3
M6
PCB3
M25
M27-1, M27-2
M26
M7
M8
④
M28
①
M29
PCB4
PCB1
M4
①
IC101
No. 18D
M11
SW1
PCB2
②
M5
②
M13
M2
②
M18
M20
M22
Serial No. Label
M9
M15
M14
M17
M10
④
⑤
M24
M16
M12
M23
CN1
CN3
CN5
③
M19
M21
CN2
CN4
②
M1
②
M4
②
PACKAGING
M35
M31,32,33,34
EVF MOUNTING BRACKET
M40
CAMERA REMOTE CONTROLLER
M35
CABLE
M37
M35
M23
M40
M36
M40

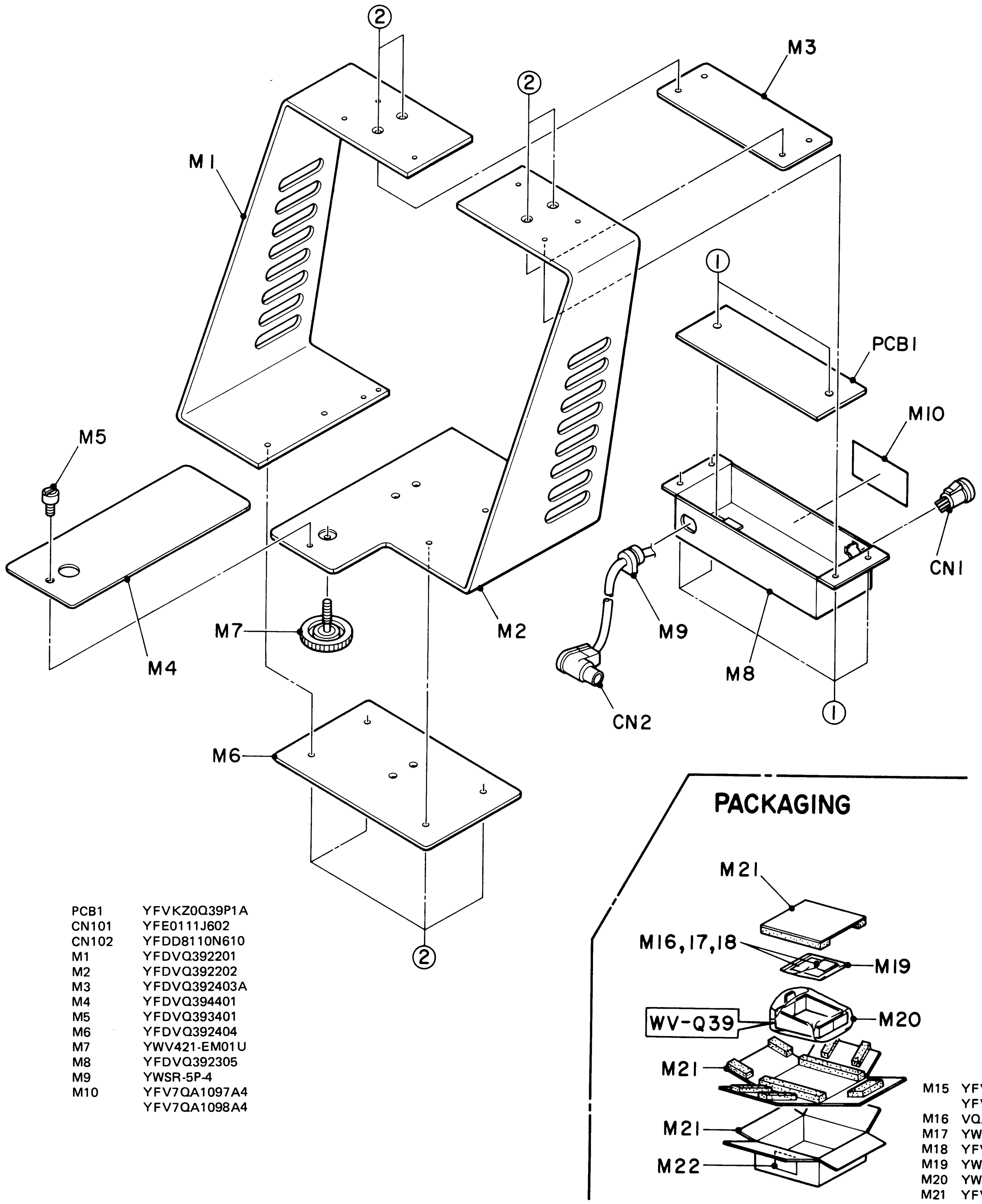
PCB1	YFVKYCR12P1A
PCB2	YFVKZCR12P2A
PCB3	YFVKZCR12P3A
PCB4	YFVKYCR12P4A
IC101	AN6541
CN1	YGRM15TRD10S
CN2	BNC-BRZ-1S
CN3	YF01P0420-00
CN4	YFD0-121N-601
CN5	EMCTMA07C07V
M1	YFV5WA0291B3
M2	YFV5WA0292A4
M3	YFV5EA0380B2
M4	YFV5EA0381B3
M5	YFV2KA0149B2
M6	YFV5RA0035A4
M7	YFV5RA0043A4
M8	YFV5RA0072A4
M9	YFV6JA0040A4
M10	YFV2CA0118A4
M11	YFV2SA0256A4
M12	YFV2SA0257B3
M13	YFSJ-5007
M14	YFV2JA0011A4
M15	YFV2FA0130A4
M16	YFV4JA0133A4
M17	YFV4JA0135A4
M18	YFV7MA0099A4
M19	YFV7MA0103A4
M20	YFV7MA0107A4
M21	YFV7MA0113A4
M22	YFV7QA1086A4
	YFV7QA1087A4
	YFV7QA1088A4
M23	YFV1EA0063A4
M24	YFV5MA0022A4
M25	YFCF51703A
M26	YFCF59609A
M27-1	YFV2PA0182A4
M27-2	YFV2PB0182A4

CN10	YFEO-111J-601
M31	YFV8QA1051AN
	YFV8QA1052AN
	YFV8QA1053AN
M32	VQA0120-3
M33	YWV22XPRB99K
M34	YFV8SA0009CN
M35	XZB26X40C05
M36	YWT050803
M37	YWT10X35C03
M40	YFV9CA0854AN
	YFV9CB0854AN
	YFV9CC0854AN

MOUNTING BRACKET (WV-Q39)

○ Numbers show screws.

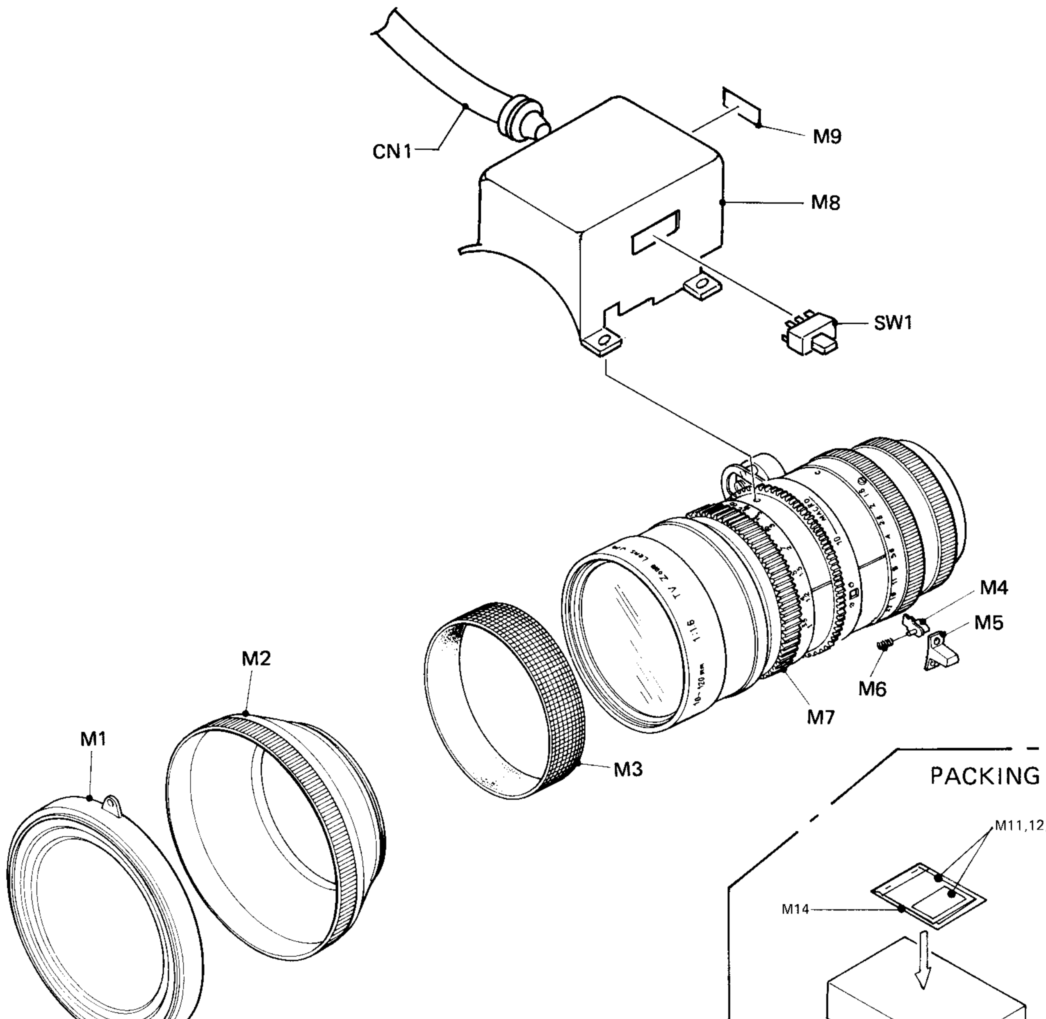
No.	Screws	Description
①	XSB3 + 5FXK	Binding Head Black Screws
②	XSS4 + 8FXK	Flush Head Machine Black Screws

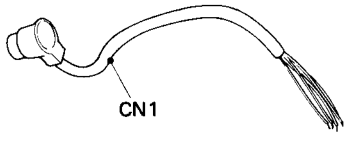

②
②
M3
M1
①
PCB1
M10
M5
CN1
M7
M2
M9
M4
M8
①
CN2
M6
②
PACKAGING
M21
M16,17,18
M19
WV-Q39
M20
M21
M21
M22

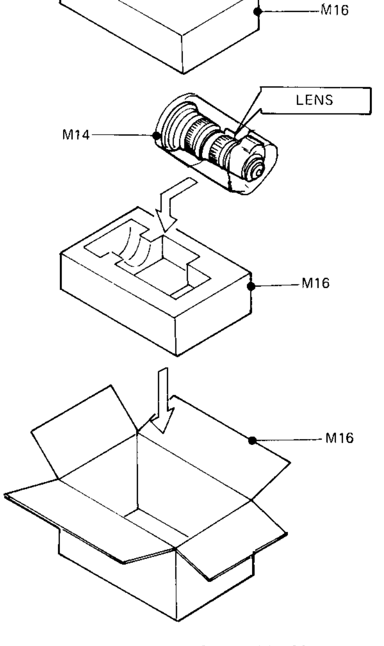
PCB1	YFVKZ0Q39P1A
CN101	YFE0111J602
CN102	YFDD8110N610
M1	YFDVQ392201
M2	YFDVQ392202
M3	YFDVQ392403A
M4	YFDVQ394401
M5	YFDVQ393401
M6	YFDVQ392404
M7	YWV421-EM01U
M8	YFDVQ392305
M9	YWSR-5P-4
M10	YFV7QA1097A4
	YFV7QA1098A4

M15	YFV8QA1064AN
	YFV8QA1065AN
M16	VQA0120-3
M17	YWV22XPRB99K
M18	YFV8SA0009CN
M19	YWT20X25C03
M20	YWT30X40C05
M21	YFV9CA0865AN
	YFV9CA0866AN
M22	YWS-RB032

EXPLODED VIEW OF ZOOM LENS (WV-LZ15/12)


CN1
M9
M8
SW1
M4
M5
M6
M7
M2
M1
M3
PACKING
M11,12,13
M14

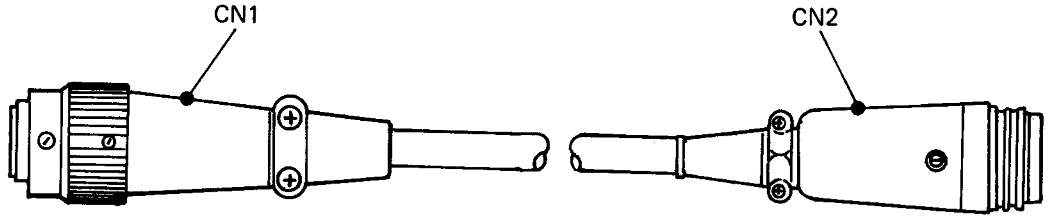



M16
LENS
M14
M16
M16

SW1	YF401614
CN1	YF401610
M1	YF401447
M2	YF401611
M3	YF401608
M4	YF121688
M5	YF616129
M6	YF616139
M7	YF401613
M8	YF401602
M9	YFV7QA1126A4

M11	YFV8QA1042AN
M12	VQA0120-3
M13	YWS-EULRB01E
M14	YWT20X20C03
M16	YFV9CA0849AN

EXPLODED VIEW OF CONVERSION CABLE (WV-CA11)



CN1	SRCB6A-16-14P
CN2	RM15TJ-10S